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EXCESS FARM SUPPLY: PERMANENT OR TRANSITORY?

Dealing effectively with economic ills of agriculture requires an understanding of their sources. The analysis here emphasizes supply; it is, however, impossible to trace price and income trajectories without also acknowledging the role of demand.

SOURCES OF THE 1980S FARM RECESSION

The current farm recession began in 1980. The parity ratio (1910–14=100) fell from 71 in 1979 to 64 in 1980, 61 in 1981, and 57 in 1982. Meanwhile, net farm income fell from $32 billion in 1979 to $20 billion in 1980 and 1982, and $25 billion in 1981.

The economic downturn traces to farm output supply and demand. Demand (measured here by growth in domestic population, real income per capita, and exports), varies widely from year to year, mainly because of the high and growing share of volatile exports in total demand. (See Table 1.)

In the 1950s, supply increased faster than demand and generated excess capacity which carried into the 1960s. (See Table 1.) This excess capacity was sufficient to require considerable commodity supply control, even though supply increased at about the same rate as demand during the 1960s. In the 1970s, demand increased faster than supply and, as expected, economic conditions improved for the farming industry as a whole. Whether measured by adjusted or unadjusted exports, the annual rate of increase in demand averaged two percent from 1971 to 1982.

Depressed farm economic conditions had quite different origins in each of the three years of the 1980s. Between 1979 and 1980, unadjusted demand increased four percent and productivity declined nearly six percent for a substantial ten percent excess demand. How could the farm recession begin in early 1980 despite the highly favorable real demand-supply balance? The downturn was caused partly by negative psychology induced by the export embargo to the Soviets early in 1980 and by convergence of the hog and cattle cycles at high output. But it was caused mostly by the cost price squeeze induced by national inflation (the GNP deflator increased nine percent) which, on the average, shows more quickly and fully in prices paid by farmers (prices for production items of nonfarm origin increased sixteen percent) than in prices received by farmers, which increased only slightly. The situation was very different between 1980 and 1981, when demand increased modestly, but productivity (due to weather) surged, creating a large excess supply of twelve percent. Between 1981 and 1982, productivity remained high and advanced supply at a somewhat normal rate; demand dropped, however, creating 2.5 percent excess supply.

The cost price squeeze generated by inflation in the expansion phase of the business cycle in 1980 should have worked in reverse in the general recession of 1981–82 by dampening interest rates and prices paid by farmers, but a restrictive monetary policy coupled with an expansionary fiscal policy (deficit spending) helped create high real interest rates, an overvalued dollar in international markets, and a depressed U.S. and world economy. The delayed effect of using food as a political weapon in 1980 and 1981 also slowed U.S. farm exports in 1982. These sources of retarded export demand can be expected to persist until the world makes a significant economic recovery.

In short, the major causes of the U.S. farm recession in the past three years were national inflation and the attendant cost price squeeze in 1980, usually high crop yields and attendant oversupply in 1981, and lagging demand caused by worldwide recession and overvalued dollar in 1982.

TABLE 1*
Estimated Annual Percentage Increase
In Real Demand, Supply, and Excess Demand for U.S. Farm Output
1949 to 1982

Years or Decade	Demand (unadjusted)	Supply (productivity)	Excess Demand
1949-1959	1.9	2.1	-0.2
1959-1969	1.9	1.8	.1
1969-1979	2.7	1.9	.8
1979-1980	4.0	-5.7	9.7
1980-1981	.3	12.0	-11.7
1981-1982	-.7	1.8	-2.5

*Data from Council of Economic Advisers

SUMMARY AND CONCLUSIONS

Any projection is hazardous, but the best guess is that supply and demand are likely to increase at somewhat comparable rates from 1982 to 2000.

The future is unlikely to be dominated either by chronic surplus or shortage of food and fiber. Rather, periods of acute food crisis and acute farm income crisis will appear sporadically to year 2000 and beyond.

Simple extension of current economic moods into the future is a widespread, but inappropriate projection. In 1966-67, and again in 1973-74, many (including "experts") were saying that the world food demand henceforth would outpace supply and that farmers would not again face crop surpluses or low prices. In the excess supply period 1933-41, 1953-65, and currently, the tendency is to expect surpluses to persist. But permanent surplus is a no more realistic projection today than was permanent shortage 1973-74.

Economic crises of surplus or shortage are difficult to predict, in part because they have multiple origins. For example, the crisis of short food supplies in 1973-1974 traced to such disparate sources as unfavorable crop weather in the United States and U.S.S.R., a low point in the U.S. cattle cycle and low anchovy catch off the coast of Peru. The current economic crisis began from multiple causes—unfavorable monetary fiscal policy, unusually favorable weather, weak world economy, and peak output in the hog and cattle cycles.

The current economic crisis in agriculture is simply another of the recurring series of economic setbacks that have plagued agriculture since its very origins. Future crises of abundance and shortage will occur, but it is impossible to predict when because of the compound sources of economic setbacks and the role of unpredictable political action and weather in the process. The most likely U.S. agriculture scenario in the next two decades is for real farm prices and supply demand ratios to show no strong upward or downward trend, but to fluctuate considerably around a somewhat flat trajectory.

Excess capacity and adjusted requirements

The estimated current excess resource capacity, a residual from high prices in the mid 1970s, represents fewer adjustment problems than did resources in the 1960s. Then labor was in excess by up to 40 percent: currently the excess is mostly in capital resources that can be reduced in a comparatively short time, although two or three years of farm prices in the 55-60 percent of parity range may be required. Much of the excess resources may be in the midsize farm classes.

Indications are that the 61 percent of parity prices experienced in 1981 may not be abnormal, but may be sufficient to induce output in line with demand and provide returns that cover all costs on adequately sized and managed farms in the 1980s. Operators of the smallest units that accounted for over 70 percent of all farms received negative net farm returns in 1981. But off farm income was sufficient to offset farm losses and provide a reasonably adequate total income (see U.S. Department of Agriculture, 1982, p. 98). The importance of off farm income is illustrated by the fact that, although aggregate real net farm income was the second lowest since 1933, personal disposable income per capita of all farm people averaged 88 percent that of nonfarmers!

Farmers now have considerable mobility and comparatively few are trapped in chronic low return operations by inertia and lack of knowledge. Most small farms that appear inefficient in Table 2 when all inputs are paid opportunity costs probably are not "privately" inefficient when the consumption value of the farm way of life, tax savings, and other benefits of residing on small units are considered. That is, part time small farmers pay for their farming out of nonfarm income, much as they would pay for a sports car or yacht.

The incidence of hardships is especially high on the midsize full time farms which incur farm income losses without offsetting income from off farm employment. These farmers face difficult times to year 2000. Because of their unique circumstances, they will provide a principal source of political pressure for commodity price supports. Price supports set high enough to maintain the economic viability of these farms may induce overproduction, require large acreage diversion programs, entail sizable Treasury outlays for commodity programs, and unduly inflate land prices by bringing windfall gains to efficiently sized and managed farms.

Parity farm prices

Prices necessary to cover all costs of production on efficiently sized farms have declined substantially since my estimate of approximately 75 percent of parity in 1979. (1910–14=100.) Data in Table 2 are subject to error, do not apply to every commodity, and must be interpreted with caution, but the shift in production and market economies toward larger farms since 1970 is consistent with trends in overall productivity. During the 1970-81 period, overall farm production efficiency increased 29 percent based on U.S. Department of Agriculture (1983) productivity estimates, while the parity ratio required to cover all costs on large farms decreased 27 percent, according to results in Table 2. This result is consistent with economic theory.

Farms that account for half of farm output now cover all resource costs with prices 54-62 percent of parity. With demand and supply expected to increase at roughly comparable rates on the average to year 2000, farm prices will tend to gravitate to the cost of production on these efficient farms. Because these farms will set land prices for all, less efficient farms will lose money even owning land with full equity if all their resources are valued at opportunity costs. If a higher parity price ratio is maintained by government programs, land values will be bid up, so that the same pattern of losses on smaller farms will prevail.

Farm problems

The principal economic problem of the farming industry in the next two decades will be the same as that of the previous four decades—instability. On the average, farming returns are likely to cover all costs as they did in the previous four decades, but periods of losses will alternate with periods of profit. The problem will be exacerbated by huge assets required for an economic unit, life cycle financing problems of family farms, high cash

TABLE 2

Unit Costs, Efficiency, and Parity Price Requirements by Economic Class of Farms
United States, 1981

	Economic class by farm sales							
Item	Less than $5,000	$5,000-$9,999	$10,000-$19,999	$20,000-$39,999	$40,000-$99,999	$100,000-$199,999	$200,000 and over	All Farms
1. Structure components								
a. number of farms (thousands)	843	335	286	278	396	186	112	2,436
b. percent of all farms	34.6	13.8	11.7	11.4	16.3	7.6	4.6	100.0
c. percent of all output	1.6	2.0	3.2	6.2	19.0	19.0	49.0	100.0
d. percent of all input	6.4	3.9	4.8	7.7	21.1	19.3	36.8	100.0
2. Efficiency measures under 3b assumptions								
a. output/input (dollars)	.19	.38	.51	.60	.68	.74	1.00	.75
b. input/output (dollars)	5.17	2.63	1.96	1.67	1.48	1.35	1.00	1.33
c. output from 1981 input used with respective farm class efficiency (billions of dollars)	34.7	69.4	93.1	109.5	124.2	135.1	182.6	136.9
d. input required to produce 1981 output with respective farm class efficiency (billions of dollars)	797.6	405.8	302.4	257.6	228.3	208.3	154.3	205.2
e. number of farms required to produce 1981 output with respective farm class (thousands)	51,467	17,063	8,848	4,510	2,086	977	229	2,436
3. Parity ratio (1910-1914 = 100) required to cover all costs:								
a. short term debt 15 percent, long term 10 percent, equity 8 percent	368	189	145	123	102	87	62	84
b. short term debt 8 percent, long term 5 percent, equity 5 percent	281	143	106	90	80	73	54	72
c. same as (b) but uniform 6 percent labor-management input share	203	116	93	82	75	72	54	68

*Source: USDA and Tweeten and Huffman

costs which cannot be deferred or absorbed, and by the increasing proportion of volatile exports in total demand. Repeated intrusion of U.S. foreign policy into farm exports has dampened exports and made the United States a residual food exporter. The challenge of keeping export markets open and free of political manipulation will be chronic.

A second major continuing farm problem will be cash flow and other difficulties stemming from inappropriate monetary fiscal policy. A tight federal monetary policy depresses short run demand at home and abroad, but reduces inflation and farm cash flow problems. A loose federal fiscal policy of large current and planned post recession federal deficits crowds out private investment and drives up short term interest rates. Investors' fears that the Federal Reserve Bank will be unable to restrain the money supply in the face of high federal deficits adds a significant inflation premium to long term interest rates. High nominal interest rates coupled with low inflation means high real interest rates which attract foreign investment, drive up the value of the dollar in foreign markets, and depress U.S. farm exports. A federal buget out of control will extend the duration of high real interest rates, retard economic recovery, and perpetuate excess capacity in agriculture.

Some problems will be peculiar to certain segments of the farming industry. One is extension of efficient farm size to larger operations, placing many traditional midsize family farms in the less efficient size categories. Adjustments will be especially painful because many such farms have traditionally been the backbone of agriculture, farm organizations, and the rural community.

Conditions to restore vitality

Restoration of economic vigor to the farming economy will require three principal conditions:

1. A growing U.S. economy and world economy without high inflation. The United States working with other nations to promote international free trade, sound domestic monetary fiscal policy and international financial stability will hasten recovery and sustain progress.
2. Decisive action to reduce U.S. wheat and dairy stocks.
3. No better than normal weather.

LUTHER TWEETEN

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Nebraska's economy expanded for the sixth consecutive month in June 1984. Output, as measured by the Bureau of Business Research's physical volume index, rose 0.4 percent as compared to May. Compared to June 1983, the index was 3.7 percent higher. Both the Nebraska and the United States economies appear to have slowed from the vigorous growth recorded during the first quarter and the beginning of the second quarter of 1984.

Only two of the state's five sectors gained during June (one sector remained unchanged). Output in the agricultural sector grew most rapidly with an increase of 3.3 percent. Manufacturing was the other growing sector; its index added 2.2 percent. The distributive sector remained unchanged, government fell 1.5 percent, and construction dropped 7.6 percent. Collectively, output in the four nonagricultural sectors remained unchanged, as growth in manufacturing was offset by losses in government and construction.

Cash receipts from farm marketings in June totaled $448.1 million, up $125.8 million from May (unadjusted for seasonal variations). However, receipts were down $7.1 million from June 1983. Throughout the first half of 1984, receipts have generally been below those of the previous year.

On a month-to-month basis, prices received by Nebraska farmers were down 0.8 percent, but were up 5.0 percent on a year-to-year basis. Prices for the first six months of 1984 have

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

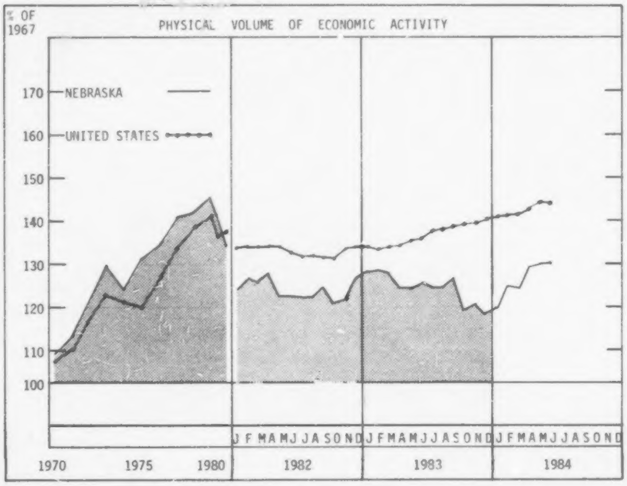
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

June 1984	Current Month as Percent of Same Month Previous Year		1984 to date as percent of 1983 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	108.3	110.3	104.5	110.9
Agricultural	103.9	95.7	84.6	96.0
Nonagricultural	108.9	110.7	107.8	111.3
Construction	120.5	117.1	137.6	121.0
Manufacturing	118.8	116.2	116.4	115.6
Distributive	103.9	109.1	102.3	110.1
Government	115.1	106.8	113.8	106.7
Physical Volume	103.7	105.9	99.8	106.3
Agricultural	99.0	88.7	80.8	88.7
Nonagricultural	104.5	106.4	103.3	106.9
Construction	117.3	114.0	134.0	118.0
Manufacturing	115.2	112.8	112.8	112.3
Distributive	99.7	104.7	98.0	105.5
Government	105.6	100.0	104.7	100.2

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	373.0	423.8
Agricultural	348.2	314.4
Nonagricultural	376.6	427.3
Construction	317.1	411.8
Manufacturing	386.4	329.2
Distributive	374.6	483.5
Government	414.7	427.4
Physical Volume	130.2	144.4
Agricultural	138.2	120.9
Nonagricultural	129.0	145.1
Construction	94.1	122.2
Manufacturing	155.1	129.2
Distributive	120.6	155.6
Government	149.5	147.4

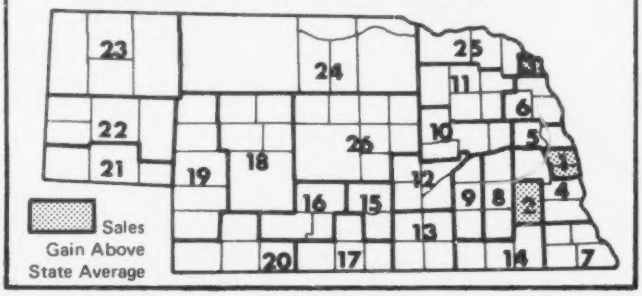


3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	June 1984 as percent of June 1983	June 1984 as percent of June 1983	1984 to date as percent of 1983 to date
The State	106.7	107.5	107.0
1 Omaha	117.4	120.4	113.3
Bellevue	126.5		
Blair	101.1		
2 Lincoln	108.4	107.9	109.4
3 So. Sioux City	139.5	125.7	105.7
4 Nebraska City	91.7	91.4	97.7
6 Fremont	102.5	95.5	98.6
West Point	83.4		
7 Falls City	86.6	86.5	93.8
8 Seward	88.3	90.3	100.0
9 York	92.4	90.4	99.3
10 Columbus	97.9	95.3	97.4
11 Norfolk	100.2	95.8	96.1
Wayne	95.2		
12 Grand Island	103.9	100.8	101.8
13 Hastings	99.0	93.9	100.1
14 Beatrice	84.3	84.9	93.8
Fairbury	82.8		
15 Kearney	102.2	99.6	101.6
16 Lexington	97.0	89.4	96.0
17 Holdrege	103.2	96.2	94.9
18 North Platte	95.8	95.5	99.2
19 Ogallala	105.4	99.5	103.2
20 McCook	91.4	88.3	95.9
21 Sidney	93.4	91.8	102.9
Kimball	94.0		
22 Scottsbluff/Gering	95.5	96.8	101.3
23 Alliance	92.9	91.3	97.3
Chadron	91.5		
24 O'Neill	95.7	93.1	93.9
25 Hartington	91.4	84.4	89.3
26 Broken Bow	93.1	92.5	92.7

State totals include sales not allocated to cities or regions. The year-to-year ratios for city and region sales may be misleading because of changes in the portion of unallocated sales. Region totals include, and city totals exclude, motor vehicle sales. Sales are those on which sales taxes are collected by retailers located in the state. Compiled from data provided by Nebraska Department of Revenue.

1984 Year to Date as Percent of 1983 Year to Date in Nebraska's Planning and Development Regions



(continued from page 4)

averaged about five percent higher than the comparable 1983 period.

The growth in manufacturing output was reflected in its level of employment. The 91,500 manufacturing employees in June marked the highest number of employees since the first two months of 1982, and represent an increase of nearly 10,000 from the lowest level during the most recent recession.

Construction's drop in output reflects the rise in interest rates that occurred at the beginning of the summer. Even though construction was 17.3 percent higher than June 1983 levels, it appears unlikely that the level of growth so far during 1984 will be sustained; construction will remain below 1970s levels.

The performance of the distributive sector has been rather lackluster so far during 1983. There have been several month-to-month changes, but no month in 1984 has recorded output above comparable months in 1983.

June's drop in government output was only its second decline during the first half of 1984. Government output has been fairly stable during the past eighteen months, as month-to-month changes have rarely exceeded 1 percent.

In June, Nebraska's retail sales surpassed $800 million for the first time during 1984, totaling $822.8 million. This represents an increases of 7.5 percent from last June. After adjustments for price changes, real retail sales exhibited moderate strength, growing 2.7 percent. This was, however, considerably below the national increase of 6.8 percent for the comparable period.

At $113.6 million, motor vehicle sales reached the highest volume ever recorded, 12.9 percent higher than last year. This growth is somewhat misleading--prices also grew rapidly, resulting in a loss of 1.2 percent in real terms. In addition, almost all of the growth in the unadjusted sales occurred in the Omaha area where sales approached $50 million.

Nonmotor vehicle sales reached $709.2 million in June 1984, up 6.7 percent from June 1983. The price-adjusted rise in these sales was 3.2 percent. As has been the case throughout 1984, June's increase was concentrated in the state's metropolitan areas.

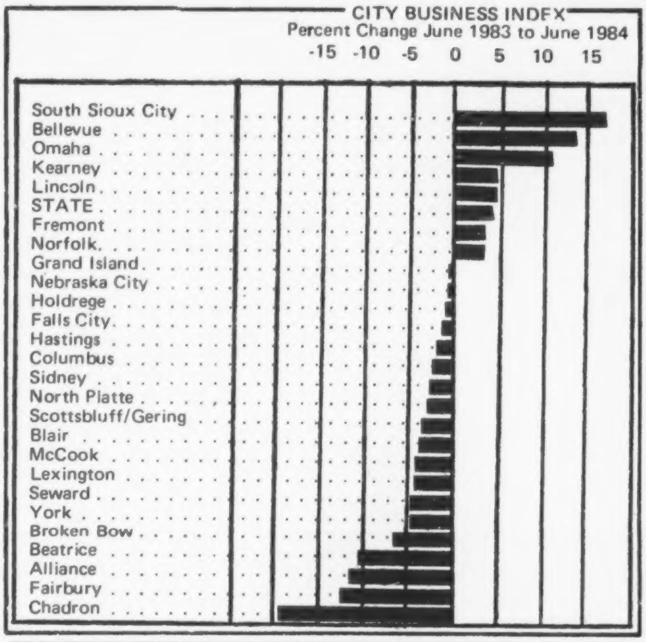
The relative sales strength of the state's metropolitan areas is reflected in the city business indexes, as four of the five cities with the fastest growth rates were located there. Overall, seven of the twenty-six cities in Table 4 recorded increases in June 1984 relative to June 1983. South Sioux City had the highest gain of 16.3 percent. The remaining cities with increases in activity were Bellevue, 13.9 percent; Omaha, 10.6 percent; Kearney and Lincoln, 4.4 percent; and Fremont and Norfolk, 3.1 percent.

JEROME A. DEICHERT

5. PRICE INDEXES

June 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	310.7	104.2	104.4
Commodity component	280.6	103.3	103.9
Wholesale Prices	311.4	103.0	103.1
Agricultural Prices			
United States	260.0	107.9	108.2
Nebraska	252.0	105.0	104.9

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.


CITY BUSINESS INDEX
Percent Change June 1983 to June 1984

4. June 1984 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	102.4	131.0	101.0
Alliance	99.5	25.3	86.7
Beatrice	102.1	51.9	73.3
Bellevue	104.0	156.8	88.4
Blair	100.7	52.9	101.6
Broken Bow	101.5	63.0	92.1
Chadron	103.3	4.1	98.2
Columbus	102.4	79.8	85.0
Fairbury	102.4	43.4	123.3
Falls City	100.9	316.3	104.9
Fremont	101.9	173.2	143.9*
Grand Island	101.9	78.6	111.6
Hastings	101.9	85.8	132.6
Holdrege	100.8	76.7	109.7
Kearney	101.8	232.4	102.4
Lexington	102.3	54.9	104.7
Lincoln	102.7	122.4	102.9
McCook	99.7	117.1	98.3
Nebraska City	101.4	206.8	105.4
Norfolk	102.1	206.4	91.2
North Platte	104.1	74.3	92.3
Omaha	104.0	178.4	105.3
Scottsbluff/Gering	101.6	85.7	75.1
Seward	102.1	114.5	98.6
Sidney	100.3	136.8	88.9
So. Sioux City	101.5	100.9	97.3
York	101.8	81.3	89.8

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

NEBRASKA POPULATION PROJECTIONS 1985-2020

In addition to population estimates, the Bureau of Business Research periodically prepares population projections for the state. These projections can be used for planning by state and local governmental agencies, business firms, labor unions, and other organizations. For example, businesses can use them to target products for a specific age group, or schools can use them to determine future needs for buildings and teachers.

The latest projections were prepared in November 1982 and were based on data from the 1980 census. Projections were made for the state and counties by age and sex for the years 1985, 1990, 1995, 2000, 2005, 2010, 2015, and 2020 and were published in *Nebraska Population Projections 1985-2020.*

This publication contains three projection series—high, medium, and low—based on differing assumptions of net migration. The medium series most closely reflects the trends revealed in the 1980 census and 1982 estimates. At the state level, age information is provided for five-year age groups and 75+. The information at the county level is not as detailed and is available for the age groups 0-4, 5-14, 15-24, 25-44, 45-64, and 65+. In addition, a special tabulation was made for the 0-17 age group.

When using projections, it is important to note the distinction between projections and the current estimates mentioned earlier. Current estimates make use of actual post-1980 census data from the recent past (1981 and 1982), such as reported births and deaths, to measure change from 1980. Projections, on the other hand, are forecasts of future populations based on assumptions of expected births, deaths, and migration.

Copies of *Nebraska Population Projections 1985-2020* are available for $17.50 from the Bureau of Business Research, 200 CBA, University of Nebraska-Lincoln, Lincoln, NE 68588-0406. Checks should be made payable to the Bureau of Business Research.

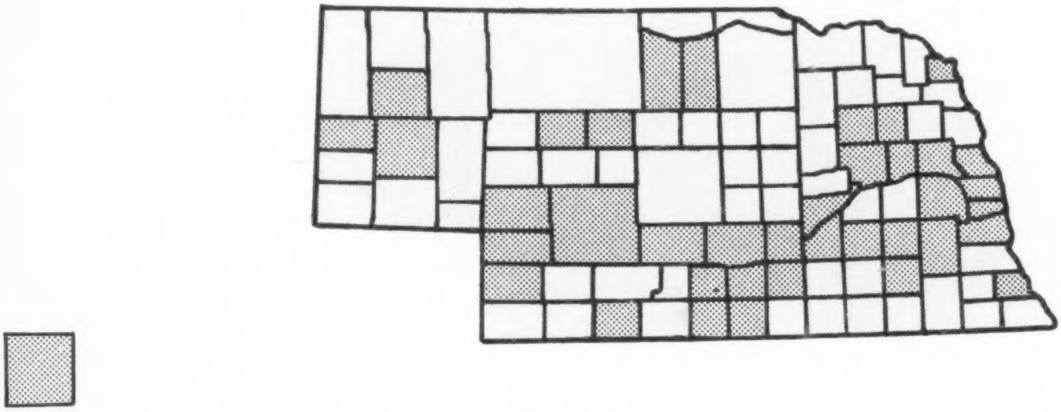


Chart 1
Nebraska Counties With Expected Population Gain Between 1980 and 1990

Shaded portion indicates those counties with expected population growth

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NEBRASKA PER CAPITA PERSONAL INCOME

This article presents and analyzes estimates of per capita personal income for Nebraska and the counties and planning regions of the state. Selected historical data and the most recent per capita personal income estimates are used to make several comparisons of area income. Briefly, total personal income of an area is income received from all sources by residents of the area. Unlike total personal income, per capita income is a measure of area income on a per individual basis. Per capita income permits comparisons of wealth among areas of different sizes and types. In this context, incomes of economically diverse counties and planning regions of Nebraska will be compared.

PERSONAL INCOME

The Bureau of Economic Analysis of the U.S. Department of Commerce regularly publishes estimates of personal income for the United States, regions, states, counties, and Standard Metropolitan Statistical Areas. At the national and state levels, the most recent annual income estimates are for 1983; the most recent county income estimates are for 1982. Personal income estimates are available to a host of users whose investigations range from analyzing past and current economic activity to predicting future economic trends. The Bureau of Business Research has constructed econometric models to generate forecasts of Nebraska economic activity. Both U.S. and state personal income are key variables in the structures of the Nebraska forecasting models.

For readers who are unfamiliar with the definition of personal income, the primary component is net earnings by place of residence. Net earnings can be further disaggregated into wages and salaries, other labor income such as fringe benefits, and proprietary income. Generally, net earnings compose the bulk of total personal income of an area. For example, 1983 net earnings for Nebraska accounted for 63 percent of total personal income. Remaining components of personal income are dividends, personal interest income, rental income, and transfer payments.

Per capita personal income of a given area is total personal income of area residents divided by resident population; it measures area wealth on a per person basis. In this format, personal income is often used as an index of the economic well-being of area residents. With per capita income, the economic well-being of residents of different areas can be compared, regardless of differences in levels of absolute income. For example, 1982 personal income estimates for Douglas County and Kearney County were $4,937 million and $86 million respectively. On a per capita basis, incomes were $12,282 for Douglas County and $12,279 for Kearney County. Clearly, absolute incomes for the two counties are extremely different in magnitude, while per capita incomes are almost equal. Conversely, 1982 personal incomes for Morrill County and Perkins County were $52 million and $55 million respectively. Per capita incomes, however, were quite different--$8,470 for Morrill County and $14,922 for Perkins County.

As an indicator of economic well-being, per capita personal income should be used cautiously. In Nebraska, per capita income varies widely from county to county. A very high or very low per capita income is frequently temporary and can result from unusual conditions such as a bumper crop, the presence of a major construction project, or adverse weather conditions. Counties with large institutional populations will frequently show a lower than expected per capita income which is not indicative of the economic well-being of the non-institutional population. Per capita personal income is a less than perfect indicator of economic well-being; estimates presented in this article should be viewed with these constraints in mind.

U.S. AND NEBRASKA PER CAPITA INCOME

In 1973, Nebraska per capita personal income was 106 percent of U.S. per capita income. This ratio declined to 94 percent in 1983. Figure 1 displays, as a percentage, the ratio of Nebraska per capita income to U.S. per capita income for the years 1972-1983. With the exception of 1973 and 1975, the income ratio has consistently remained below 100 percent, with sharp declines occurring in 1974 and 1976. The ratios of Figure 1 imply that Nebraska residents are not as economically well off as their counterparts in some other regions of the country. Regional differences, however, in important factors such as cost of living, taxes, and environment need to be considered when evaluating economic well-being.

An examination of the components of total personal income reveals why the per capita income ratio is subject to extreme fluctuation. Below, total personal income is disaggregated into farm and nonfarm income for the years 1972-1976, a time frame selected since the greatest fluctuations in the income ratio occurred during this period:

Nebraska Total Personal Income
(millions of $)

	1972	1973	1974	1975	1976
Farm	808	1,332	793	1,183	579
Nonfarm	5,977	6,773	7,485	8,127	9,039

(continued on page 2)

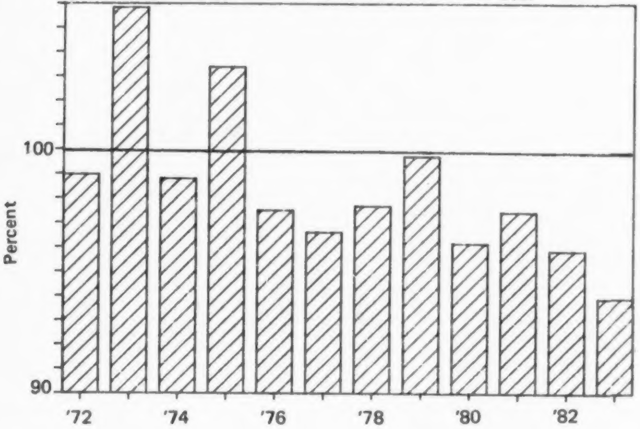


Figure 1 *
Per Capita Personal Income, Nebraska as a % of U.S.

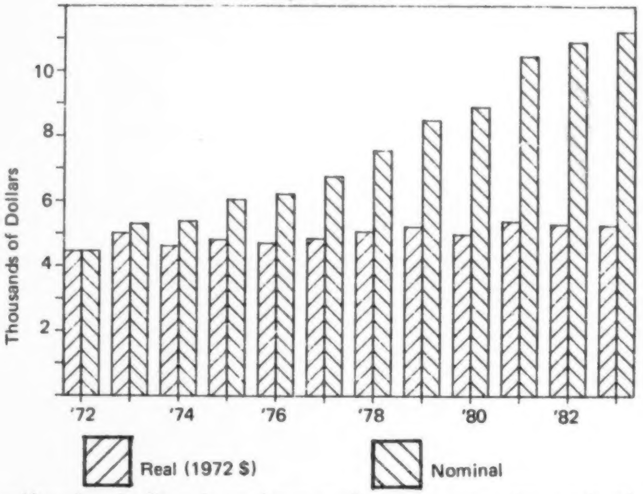


Figure 2 *
Nebraska Per Capita Personal Income

(continued from page 1)

It is evident from the above data that wide swings in the income ratio are primarily the result of instability of farm income. While nonfarm income has increased at a steady rate, farm income is up one year, down the next year. The instability of farm income is caused by the volatility of the agricultural sector. Commodity and livestock prices, world market demand, interest rates, and variations in weather are factors that affect farm income. From a different perspective, Nebraska farm income ranged from 16 percent of total personal income in 1973 to 3 percent in 1980. Nationally, farm income ranged from 1 percent to 4 percent of total personal income during the same period. Based on these observations, it is clear why the per capita income ratio lacks stability.

NOMINAL AND REAL PER CAPITA INCOME

To present an accurate picture of the growth of Nebraska per capita personal income, it is necessary to discuss changes in both nominal and real income over an extended time period. Nominal income, the current dollar value of income, is not adjusted for price changes that occur over time. Real income, on the other hand, is adjusted for inflation and expressed in base year dollars. The base year depends on which deflator is selected to change nominal income to real income. In this article, the personal consumption expenditures deflator was used to change nominal per capita income to 1972 dollars.

The bar graph of Figure 2 presents levels of both nominal and real Nebraska per capita income for the years 1972-1983. Nominal per capita income grew from $4,469 in 1972 to $11,212 in 1983, a 151 percent absolute increase and an annual growth rate of 8.7 percent. The impressive increase in Nebraska per capita income is illusionary when the effects of inflation are taken into account. Over the same period, real per capita income grew from $4,469 to $5,249, an absolute increase of only 17 percent and a 1.5 percent annual growth rate. As indicated in Figure 2, growth of real per capita income differs significantly from that of its nominal counterpart.

The rather flat growth of real per capita income is punctuated by several periods of decline. Since nonfarm income has increased uniformly, declines in real per capita income are the result of an increase in inflation, a decline in farm income, or a combination of both factors. More recently, Nebraska real per capita income declined during 1982 and 1983, years in which inflation remained in check. It is likely that real per capita income for Nebraska will continue to decline in 1984 if farm income remains down and inflation holds it current course.

COUNTY PER CAPITA INCOME

The counties and regions of Nebraska are both physically and economically diverse. As a result, per capita income can vary widely from area to area. Also, any area of the state can experience a wide range of economic conditions over time. Table 1 presents 1972 and 1982 estimates of per capita personal income for the 93 counties and 25 planning regions of Nebraska. Also included in the table are county and regional rankings of per capita income and 1972-1982 percent changes in nominal and real per capita income.

Per capita income is an index of the economic well-being of area residents. One must keep in mind the shortcomings of this indicator. Rankings are assigned to county and region per capita incomes. Simplistically, 1972 and 1982 rankings can be compared to measure improvement. In 1972, county per capita income ranged from $2,979 for Blaine County to $6,414 for Perkins County. In 1982, the low and high incomes were $5,504 for Loup County and $14,922 for Perkins County. Levels of county per capita income have increased dramatically from 1972 to 1982. If inflation is considered, increases in real per capita income are less marked. The greatest percent increases in nominal per capita income were 177 percent for Logan County, 175 percent for Cheyenne County, and 166 percent for Blaine County. In real terms, this translates into per capita income increases of 34 percent or less. Some counties suffered declines in real per capita income. From 1972 to 1982, per capita income declined by as much as 30 percent in eleven Nebraska counties.

Table 1 contains a great deal of information that can be used selectively. Information in the table is summarized below with a listing of the top ten Nebraska counties in terms of per capita income:

(continued on page 6)

*U.S. Department of Commerce, Bureau of Economic Analysis, ***Survey of Current Business***, August 1984 and other sources.

Table 1 *
Per Capita Personal Income, 1972 and 1982
Income, $
Rank
% Change, Nominal and Real

Area	Per Capita Income		Rank		% Change Per Capita Income	
	1972	1982	1972	1982	Real 1972-82	Nominal 1972-82
Region 1	4810	11,586	4	3	141	17
Douglas	5009	12,282	10	4	145	19
Sarpy	3746	8714	75	73	133	13
Washington	4475	10,441	22	27	133	13
Region 2	4549	10,898	6	6	140	16
Lancaster	4549	10,898	19	16	140	16
Region 3	4191	8701	16	22	108	1
Dakota	4191	8701	48	74	108	1
Region 4	4318	9947	11	16	130	12
Cass	4266	10,142	41	36	138	15
Otoe	4446	9528	24	47	114	4
Saunders	4262	10,067	42	39	136	15
Region 6	4546	10,833	7	7	138	16
Burt	4740	10,414	15	28	120	7
Cuming	4450	11,454	23	11	157	25
Dodge	4627	11,252	17	12	143	18
Thurston	4050	8274	56	83	104	-1
Region 7	4271	8984	15	21	110	2
Johnson	4108	8903	53	65	117	5
Nemaha	4274	9067	40	57	112	3
Pawnee	4031	9008	57	61	123	8
Richardson	4431	8952	25	64	102	-2
Region 8	4049	9651	19	19	138	16
Butler	4310	9394	35	51	118	6
Saline	4416	10,710	27	21	143	18
Seward	3587	8899	80	66	148	20
Region 9	4893	11,094	2	4	127	10
Fillmore	5191	11,694	6	10	125	9
Polk	4792	10,973	13	15	129	11
York	4763	10,828	14	18	127	10
Region 10	4535	10,562	8	8	133	13
Boone	4131	10,017	51	40	142	18
Colfax	3934	10,138	66	37	158	25
Nance	3763	8407	74	80	123	8
Platte	5011	11,188	9	13	123	8
Region 11	4085	10,066	18	14	146	20
Antelope	4287	10,555	39	25	146	20
Madison	4256	10,860	43	17	155	24
Pierce	3838	9311	70	53	143	18
Stanton	4059	8683	55	75	114	4
Wayne	3657	8618	78	76	136	14
Region 12	4345	10,192	10	13	135	14
Hall	4483	10,599	21	24	136	15
Hamilton	4818	10,174	11	34	111	3
Howard	3470	9051	85	59	161	27
Merrick	3916	8827	67	69	125	9
Region 13	4284	10,402	12	10	143	18
Adams	4402	10,773	28	19	145	19
Clay	4174	10,743	49	20	157	25
Nuckolls	3942	8958	65	63	127	10
Webster	4230	9441	45	49	123	8
Region 14	3981	10,215	20	12	157	25
Gage	4013	10,305	58	31	157	25
Jefferson	3731	9896	76	42	165	29
Thayer	4214	10,329	47	30	145	19
Region 15	3944	9798	21	18	148	21
Buffalo	3635	9322	79	52	156	24
Kearney	5400	12,279	5	5	127	10
Region 16	4280	9929	13	17	132	13
Dawson	4423	10,228	26	32	131	12
Frontier	4102	9052	54	58	121	7
Furnas	3967	9487	64	48	139	16
Gosper	4254	9669	44	45	127	10
Region 17	4688	11,005	5	5	135	14
Franklin	4369	10,151	31	35	132	13
Harlan	4297	10,003	37	41	133	13
Phelps	5016	11,795	8	7	135	14
Region 18	4168	10,366	17	11	149	21
Hooker	3990	8759	60	71	120	7
Lincoln	4218	10,526	46	26	150	21
Logan	3463	9576	86	46	177	34
McPherson	4291	7556	38	88	76	-15
Thomas	3372	8897	88	67	164	28
Region 19	5169	11,863	1	2	129	11
Arthur	4168	8123	50	85	95	-5
Chase	5700	11,707	4	9	105	0
Grant	3988	10,404	62	29	161	27
Keith	4676	11,070	16	14	137	15
Perkins	6414	14,922	1	1	133	13
Region 20	4272	10,406	14	9	144	18
Dundy	4816	11,789	12	8	145	19
Hayes	4345	6858	33	90	58	-23
Hitchcock	4327	9685	34	44	124	9
Red Willow	4117	10,684	52	23	160	26
Region 21	4859	12,725	3	1	162	27
Cheyenne	4368	11,996	32	6	175	33
Deuel	6291	14,574	2	2	132	12
Kimball	5101	13,287	7	3	160	26
Region 22	4371	10,002	9	15	129	11
Banner	6266	10,698	3	22	71	-17
Garden	4572	10,072	18	38	120	7
Morrill	3858	8470	68	79	120	7
Scotts Bluff	4385	10,225	30	33	133	13
Region 23	3861	8518	22	24	121	7
Box Butte	4398	8741	29	72	99	-4
Dawes	3312	8343	90	82	152	22
Sheridan	3993	8893	59	68	123	8
Sioux	3454	6083	87	91	76	-15
Region 24	3720	8578	25	23	131	12
Boyd	3562	8388	82	81	135	14
Brown	3987	8808	63	70	121	7
Cherry	4502	9694	20	43	115	5
Holt	3338	8177	89	84	145	19
Keya Paha	3244	5577	91	92	72	-17
Rock	3556	9180	83	55	158	25
Region 25	3793	8362	24	25	120	7
Cedar	3576	8535	81	77	139	16
Dixon	4299	8522	36	78	98	-4
Knox	3698	8095	77	86	119	6
Region 26	3830	9046	23	20	136	15
Blaine	2979	7926	93	87	166	29
Custer	3989	9430	61	50	136	15
Garfield	3536	9225	84	54	161	27
Greeley	3807	9051	72	60	138	15
Loup	3837	5504	71	93	43	-30
Sherman	3789	9178	73	56	142	18
Valley	3843	8978	69	62	134	13
Wheeler	3193	7029	92	89	120	7
STATE	4469	10,641	--	--	138	16
Metro	4729	11,329	--	--	140	16
Nonmetro	4257	10,065	--	--	136	15

*U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, April 1984 and other sources.

Review and Outlook

Nebraska's economy slowed in the third quarter, a reflection in part of national trends. All sectors with the exception of government recorded declines.

The agriculture sector recorded a 5.1 percent drop, according to the Bureau of Business Research's net physical volume index. Cash farm marketings were $448 million in July, down from June, but up from one year ago. Prices received by Nebraska's agriculture producers were unchanged in July, but are 5.8 percent above year ago levels. Despite this increase, a considerable amount of stress exists in Nebraska's agriculture sector. The problem is associated with low prices resulting from substantial worldwide production of grains and high interest rates. Any business, agricultural or nonagricultural, that is highly leveraged is damaged by current high interest rates.

Nebraska's nonagricultural sector also declined in July, recording a 0.3 percent decrease. Construction dropped 2.2 percent on a month-to-month basis. Interest rates in June and July were rising, which has a negative impact upon the construction sector.

Nebraska's manufacturing sector recorded a 1.0 percent decrease on a month-to-month basis. The index is still well below peak levels reached in 1981. Employment in Nebraska's manufacturing sector now stands at 90,000, down from a peak of 100,000.

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

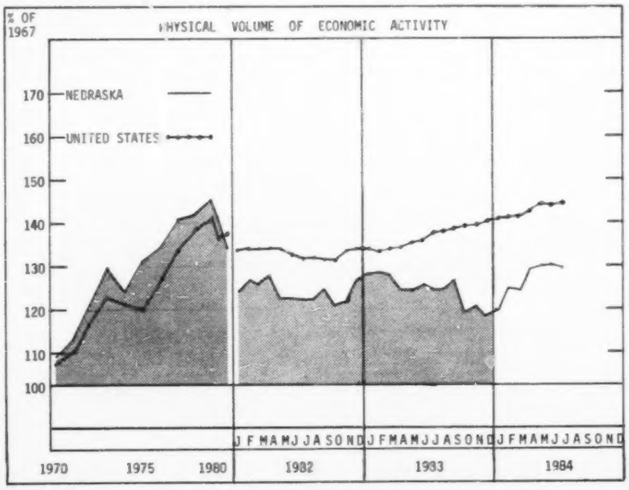
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

July 1984	Current Month as Percent of Same Month Previous Year		1984 to date as percent of 1983 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	108.4	109.4	105.1	110.7
Agricultural	107.5	96.4	87.4	96.0
Nonagricultural	108.6	109.7	107.9	111.1
Construction	111.7	114.4	133.0	120.0
Manufacturing	115.6	112.0	116.3	115.1
Distributive	105.5	109.2	102.8	110.0
Government	111.6	106.8	113.4	106.7
Physical Volume	103.9	105.1	100.3	106.1
Agricultural	101.6	88.1	83.5	88.6
Nonagricultural	104.3	105.6	103.4	106.7
Construction	110.3	113.0	129.9	117.2
Manufacturing	112.1	109.0	112.7	111.8
Distributive	101.3	104.9	98.5	105.4
Government	103.4	100.7	104.5	100.3

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	371.2	425.1
Agricultural	334.0	315.8
Nonagricultural	376.6	428.7
Construction	310.1	414.6
Manufacturing	383.4	327.7
Distributive	373.0	486.1
Government	428.7	429.5
Physical Volume	129.0	144.6
Agricultural	131.5	122.9
Nonagricultural	128.6	145.3
Construction	92.0	123.0
Manufacturing	153.6	128.5
Distributive	119.7	155.9
Government	153.8	148.2

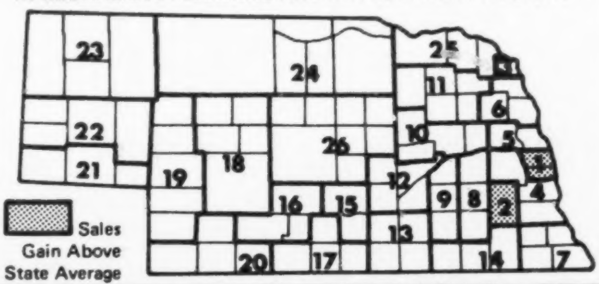


3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES (Adjusted for Price Changes)

Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	July 1984 as percent of July 1983	July 1984 as percent of July 1983	1984 to date as percent of 1983 to date
The State	114.5	115.6	108.2
1 Omaha	119.3	119.9	114.3
Bellevue	122.4		
2 Lincoln	109.8		
3 So. Sioux City	117.6	121.2	111.0
4 Nebraska City	105.9	106.1	105.7
5 Fremont	107.0	107.6	99.1
Blair	109.2	102.2	99.1
6 West Point	90.7		
7 Falls City	89.7	98.9	94.5
8 Seward	107.3	105.4	100.7
9 York	109.7	114.0	101.3
10 Columbus	116.7	112.7	99.3
11 Norfolk	100.7	102.7	97.0
Wayne	105.1		
12 Grand Island	107.8	109.3	102.9
13 Hastings	123.2	112.9	101.8
14 Beatrice	103.3	100.7	94.7
Fairbury	93.9		
15 Kearney	113.2	109.5	102.7
16 Lexington	97.3	99.1	96.4
17 Holdrege	121.7	112.7	97.3
18 North Platte	101.9	104.5	100.0
19 Ogallala	102.4	107.9	104.0
20 McCook	117.2	115.6	98.5
21 Sidney	110.5	112.8	104.4
Kimball	100.6		
22 Scottsbluff/Gering	98.7	101.9	101.4
23 Alliance	113.6	103.9	98.3
Chadron	99.8		
24 O'Neill	108.2	97.6	94.5
25 Hartington	103.8	91.5	89.6
26 Broken Bow	90.3	96.0	93.2

State totals include sales not allocated to cities or regions. The year-to-year ratios for city and region sales may be misleading because of changes in the portion of unallocated sales. Region totals include, and city totals exclude, motor vehicle sales. Sales are those on which sales taxes are collected by retailers located in the state. Compiled from data provided by Nebraska Department of Revenue.

1984 YEAR TO DATE AS PERCENT OF 1983 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



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Output from Nebraska's government sector recorded a 2.9 percent increase on a month-to-month basis. Nebraska's distributive trade sector recorded a decrease of 0.8 percent June-July 1984.

Despite the slowdown in the state's economy, retail sales were up 15.6 percent in July on a dollar volume basis (unadjusted for price changes). When adjustments for price changes are made, the increase was 11.0 percent. Nonmotor vehicle sales were up 14.5 percent on a dollar volume basis, 11.3 percent when adjusted for price changes. Motor vehicle sales were up a substantial 23.7 percent unadjusted for price changes, 9.4 percent when adjusted for price changes.

The boom in motor vehicle sales in Nebraska is concentrated in the metropolitan area. Motor vehicle sales in July 1984 were $19.5 million above year previous levels. The metropolitan Omaha area recorded an increase of $8.1 million, nearly half of the dollar volume increase. Lincoln recorded an increase of $4.9 million. Combined, Omaha and Lincoln automobile sales gains accounted for two-thirds of the state increase.

Hastings led all Nebraska cities with a 13.4 percent jump in its city business index. Bellevue and Omaha followed, with Kearney ranking fourth in terms of growth in its city business index. Fremont, Lincoln, Columbus, and Holdrege all ranked above the state average.

Nebraska's economy seems to be following national trends of slower economic growth. Overall, Nebraska's economy is expanding at a real rate of 2 to 3 percent a year, but this increase is unevenly distributed. The metropolitan Omaha area is far outdistancing other parts of the state in economic growth; retail sales, employment, personal income, and output are far stronger in Omaha than in other areas. Nearly 40 percent of all employment gains over the past year were in the metropolitan Omaha area, and, as noted above, automobile sales are far stronger than in the rest of the state.

The reason for Omaha's stronger economy appears to be related to its diversity. The economic base of Omaha is far more diversified than other areas in Nebraska. It is less dependent upon the agriculture sector. Omaha processes less grain and livestock than ten or twenty years ago. The economic base of Omaha has shifted toward services and away from agriculture and manufacturing. The rise of firms associated with telecommunications and telemarketing is important in broadening Omaha's base and in explaining its current prosperity in a regional economy impacted by a lagging agriculture sector.

DONALD E. PURSELL

5. PRICE-INDEXES

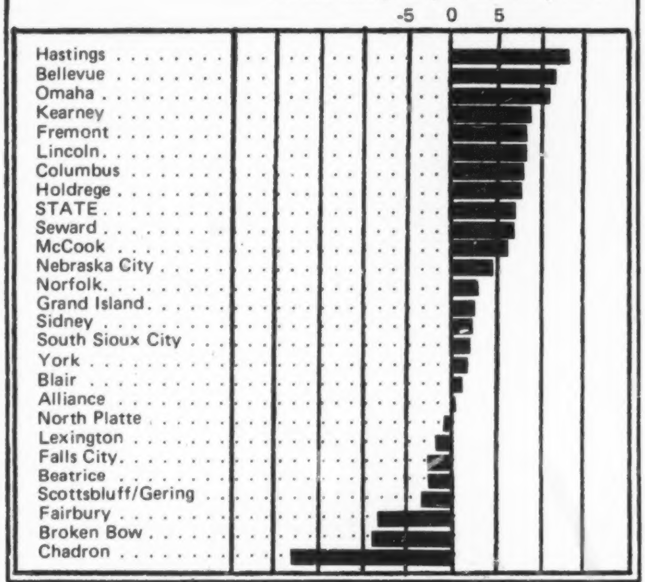
July 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	311.7	104.1	104.3
Commodity component	280.6	103.0	103.8
Wholesale Prices	310.9	102.5	103.0
Agricultural Prices			
United States	257.0	109.4	108.4
Nebraska	254.0	105.8	105.0

*Using arithmetic average of monthly indexes.

Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

CITY BUSINESS INDEX

Percent Change July 1983 to July 1984



4. July 1984 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	100.7	126.9	98.9
Alliance	98.2	46.9	86.2*
Beatrice	100.0	55.3	98.9
Bellevue	102.0	146.2	93.3
Blair	99.3	70.3	89.8*
Broken Bow	100.3	47.2	90.9
Chadron	97.2	4.3	150.9
Columbus	100.7	116.4	103.2
Fairbury	100.3	38.8	104.4
Falls City	99.0	208.1	93.2
Fremont	100.0	247.1	135.4*
Grand Island	100.4	92.9	101.9
Hastings	100.3	253.2	N/A
Holdrege	99.4	82.3	102.5
Kearney	100.4	193.8	104.9
Lexington	100.3	101.0	92.5
Lincoln	101.4	102.2	99.3
McCook	98.3	107.7	98.0
Nebraska City	99.7	168.4	90.8
Norfolk	100.3	193.8	94.3
North Platte	102.8	70.0	98.3
Omaha	102.0	166.4	98.4
Scottsbluff/Gering	99.9	70.7	103.5
Seward	100.7	240.4	92.9
Sidney	98.8	82.6	95.4
So. Sioux City	99.2	117.8	89.1
York	100.5	74.4	88.4

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

(continued from page 2)

1972 and 1982 County Per Capita Income, $

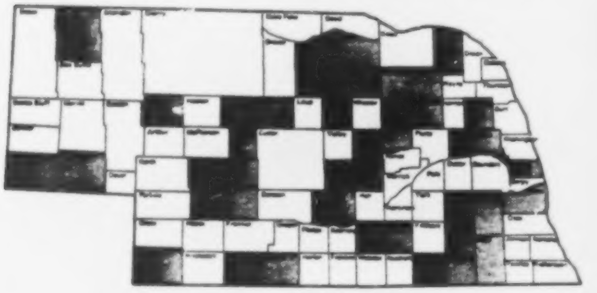
Rank	1972		1982	
1	Perkins	6,414	Perkins	14,922
2	Deuel	6,291	Deuel	14,574
3	Banner	6,266	Kimball	13,287
4	Chase	5,700	Douglas	12,282
5	Kearney	5,400	Kearney	12,279
6	Fillmore	5,191	Cheyenne	11,996
7	Kimball	5,101	Phelps	11,795
8	Phelps	5,016	Dundy	11,789
9	Platte	5,011	Chase	11,707
10	Douglas	5,009	Fillmore	11,694

This exercise highlights shifts in per capita income that have occurred from 1972 to 1982. During this time, eight counties repeated in the top ten ranks of per capita income. Cheyenne County and Dundy County did not appear in the 1972 rankings, but were ranked sixth and eighth in 1982. Banner County and Platte County disappeared from the top ten ranks of 1982. In 1982, statewide per capita personal income was $10,641*, a 138 percent increase from 1972 income and a 16 percent increase in real terms. From 1972 to 1982, 36 of Nebraska's 93 counties experienced increases in nominal per capita income equal to or greater than the statewide increase. These counties are identified in Figure 3. In 1982, only 23 Nebraska counties reported per capita incomes at or above the state average. The location of these counties is presented in Figure 4.

*This income figure was recently revised upward. The $10,641 per capita income must be used, however, when comparing county per capita incomes to state per capita income.

CHARLES L. BARE

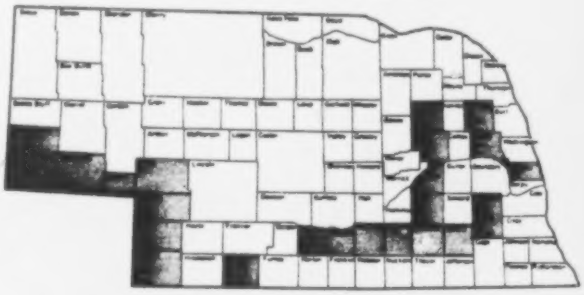
Figure 3
1972-82 Percent Increase in County Per Capita Personal Income



▨ equal to or greater than State increase

☐ less than State increase

Figure 4
1982 County Per Capita Personal Income



▨ equal to or greater than 1982 State per capita personal income ($10,641)

☐ less than 1982 State per capita personal income

BUSINESS IN NEBRASKA
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BUSINESS IN NEBRASKA

December 1984
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Prepared by the Bureau of Business Research, 200 College of Business Administration, University of Nebraska, Lincoln, NE 68588-0406, 402/472-2334

EMPLOYMENT CHANGES IN NEBRASKA AND NEARBY STATES, 1982-1984

The number of persons on nonagriculture payrolls in Nebraska increased from 610,400 in May-June of 1982 to 629,900 for the same two months in 1984, a gain of approximately 3.2 percent. While this growth was better than the record for the plains states--2.4 percent--it was less than the 4.5 percent nationwide gain.

This article reviews changes in employment as reflected in nonagriculture payrolls over the period May-June 1982 through May-June 1984. Payroll data are used as they provide a consistent set of data for Nebraska and surrounding states. Unfortunately, the May-June 1984 data are the most recent consistent data available.

The article examines employment in the plains region--Iowa, Nebraska, Kansas, Missouri, Wisconsin, Minnesota, North and South Dakota--and in the neighboring states of Colorado and Wyoming.

The period of analysis is May-June 1982 compared with the same two months of 1984. Somewhat more recent data are available for some states; these were not used because the limited data reduced the number of states for comparison.

Determination of the period of analysis always has an impact upon results. In this case, an effort has been made to minimize this effect by selecting numbers common to all states and examining only nonagriculture employment. Altering the beginning and/or the ending data affects results, a point the reader is urged to keep in mind.

OVERVIEW

Employment in the United States increased 4.5 percent from May-June 1982 through the same period of 1984. The plains region failed to keep pace with national gains, with a recorded increase of 2.4 percent. Minnesota (with a 5.1 percent gain) and South Dakota (with a 4.9 percent increase) were the only plains states to better the national average. Nebraska recorded a 3.2 percent gain, while Kansas and Missouri registered 1.5 percent jumps. Iowa, however, had a lower level of employment in May and June of 1984 than during the same period of 1982 (Table 1 and Chart 1).

Nebraska neighbors outside the plains area recorded substantially different employment experiences over the two year period. Colorado recorded a 3.6 percent gain in employment. On the other hand, Wyoming employment decreased 7.1 percent over the same interval. Colorado, with its more diversified economy, has managed to add a number of jobs, while Wyoming remains mired in the recession. Wyoming's dependence upon the price of oil and coal has undoubtedly depressed this state's economy.

Table 1 *
Total Employment
May-June 1982 and May-June 1984
(in thousands)

State	May-June 1982	May-June 1984	Average Change
Nebraska	610.4	629.9	3.2%
Kansas	930.8	945.1	1.5%
Iowa	1,041.4	1,039.1	-0.2%
Missouri	1,935.0	1,964.2	1.5%
Minnesota	1,734.1	1,823.4	5.1%
South Dakota	235.3	246.7	4.9%
North Dakota	253.8	253.8	0.0%
Colorado	1,316.3	1,363.6	3.6%
Wyoming	224.4	208.6	-7.1%
PLAINS STATES	6,740.6	6,902.1	2.4%

*All tables in this issue are from the U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings.*

EMPLOYMENT BY SECTOR

When total employment is disaggregated by sector, interesting differences are uncovered. Different recovery rates from the 1981-1982 recession show clearly in the manufacturing employment component. This is typical of a recovery situation where employment in manufacturing returns more rapidly than service employment, for example, since cuts in manufacturing employment are generally more severe during a recession.

Data in Table 2 summarize employment by sector for the various states for the period May-June 1982 compared with May-June 1984. Nationally manufacturing employment increased 3.2 percent from 19.0 million to 19.7 million. Among plains states, manufacturing employment increased from 855,000 to 888,000, a rise of 3.8 percent.

There was a substantial variation, however, in manufacturing employment among the plains states. South Dakota led all plains states with a 13.6 percent increase in manufacturing employment, followed by Minnesota with a 5.9 percent gain.

(continued on page 2)

Table 2
Employment by Sector by State
May-June 1982 and May-June 1984
(in thousands)

	May-June 1982	May-June 1984	% Change
NEBRASKA			
Mining & Construction	23.9	23.8	-0.4%
Manufacturing	87.3	90.9	4.1%
Services	499.2	515.3	3.2%
KANSAS			
Mining & Construction	58.8	59.9	1.9%
Manufacturing	169.6	177.2	4.5%
Services	702.5	708.1	0.8%
IOWA			
Mining & Construction	39.5	43.9	11.3%
Manufacturing	211.0	208.2	-1.3%
Services	791.0	787.0	-0.5%
MISSOURI			
Mining & Construction	84.5	84.3	-0.3%
Manufacturing	410.2	420.7	2.6%
Services	1,440.4	1.459.3	1.3%
MINNESOTA			
Mining & Construction	74.9	84.0	12.1%
Manufacturing	347.6	368.2	5.9%
Services	1,311.6	1,371.2	4.5%
SOUTH DAKOTA			
Mining & Construction	10.9	11.6	6.4%
Manufacturing	25.1	28.5	13.6%
Services	199.3	206.7	3.7%
NORTH DAKOTA			
Mining & Construction	26.9	23.8	-11.4%
Manufacturing	14.7	15.3	3.7%
Services	212.2	214.7	1.2%
COLORADO			
Mining & Construction	124.1	123.4	0.5%
Manufacturing	184.0	187.6	2.0%
Services	1,008.3	1,052.6	4.4%
WYOMING			
Mining & Construction	56.9	47.5	-16.6%
Manufacturing	9.1	8.1	-11.0%
Services	158.5	153.1	-3.4%
PLAINS STATES			
Mining & Construction	234.8	247.0	5.2%
Manufacturing	855.2	888.1	3.8%
Services	3,715.7	3,802.9	2.3%
UNITED STATES			
Mining & Construction	5,219.0	5,411.0	3.5%
Manufacturing	19,044.0	19,661.0	3.2%
Services	66,233.0	69,502.5	4.7%

(continued from page 1)

(Table 3). South Dakota, of course, has a very small manufacturing base so that a small increase has a substantial impact. Minnesota, on the other hand, has one of the largest manufacturing employment bases among the plains states and it did very well during this two year period May-June 1982 through May-June 1984.

Table 3
Percentage Change in Manufacturing Employment
May-June 1982 Compared to May-June 1984

State	Percent
Nebraska	4.1%
Kansas	4.5%
Iowa	-1.3%
Missouri	2.6%
Minnesota	5.9%
South Dakota	13.6%
North Dakota	3.7%
Colorado	2.0%
Wyoming	–11.0%
PLAINS STATES	3.8%
UNITED STATES	3.2%

Nebraska recorded a 4.1 percent increase, while Kansas gained 4.5 percent. Iowa had fewer manufacturing employees in 1984 than in 1982.

Colorado and Wyoming present some interesting changes in manufacturing employment over this interval. Manufacturing employment in Colorado increased by 3,600 or nearly 2.0 percent from May-June 1982 through May-June 1984. Colorado had one of the strongest economies in terms of employment gains during the past two years, but these gains were primarily in the nonmanufacturing sector.

Wyoming recorded an 11.0 percent decrease in manufacturing employment over this interval. Wyoming's economy is very small and the closing or slowdown at one plant could have a substantial impact upon manufacturing employment in Wyoming.

Data in Table 2 also summarize employment in the service sector. This sector includes retail and wholesale trade, transportation, communication, and utilities, services, finance, insurance, and real estate, and government.

Service employment increased 4.7 percent nationally over the interval May-June 1982 through the same months of 1984. In the plains states, the gain was less than 2.3 percent. Minnesota led all states with a 4.5 percent jump in services, followed by South Dakota with a 3.7 percent gain. Nebraska service employment increased 3.2 percent. Missouri, North Dakota, and Kansas recorded growth rates below the plains states average, while Iowa recorded a decrease of 0.5 percent.

Nationally, mining and construction employment has not maintained pace with total employment. This is an unusual twist--

(continued on page 3)

(continued from page 2)

in most recovery periods construction is one of the first industries to lead the way in the upturn. The mining component affects this sector's overall rate of growth; the decline in natural resource prices has adversely impacted employment in mining.

On the plains, mining and construction employment has increased more rapidly than total employment. Minnesota and Iowa led the plains states with substantial gains in mining and construction employment (Table 2). Minnesota has recorded 12.1 percent and Iowa 11.3 percent growth in mining and construction employment. South Dakota has experienced a gain in mining and construction employment of 6.4 percent, which was above the plains average growth of 5.2 percent. All other states in the area were below the average for the plains. Kansas recorded a 1.9 percent increase in mining and construction employment. Missouri, Nebraska, and North Dakota recorded declines in employment in this sector.

CONCLUSION

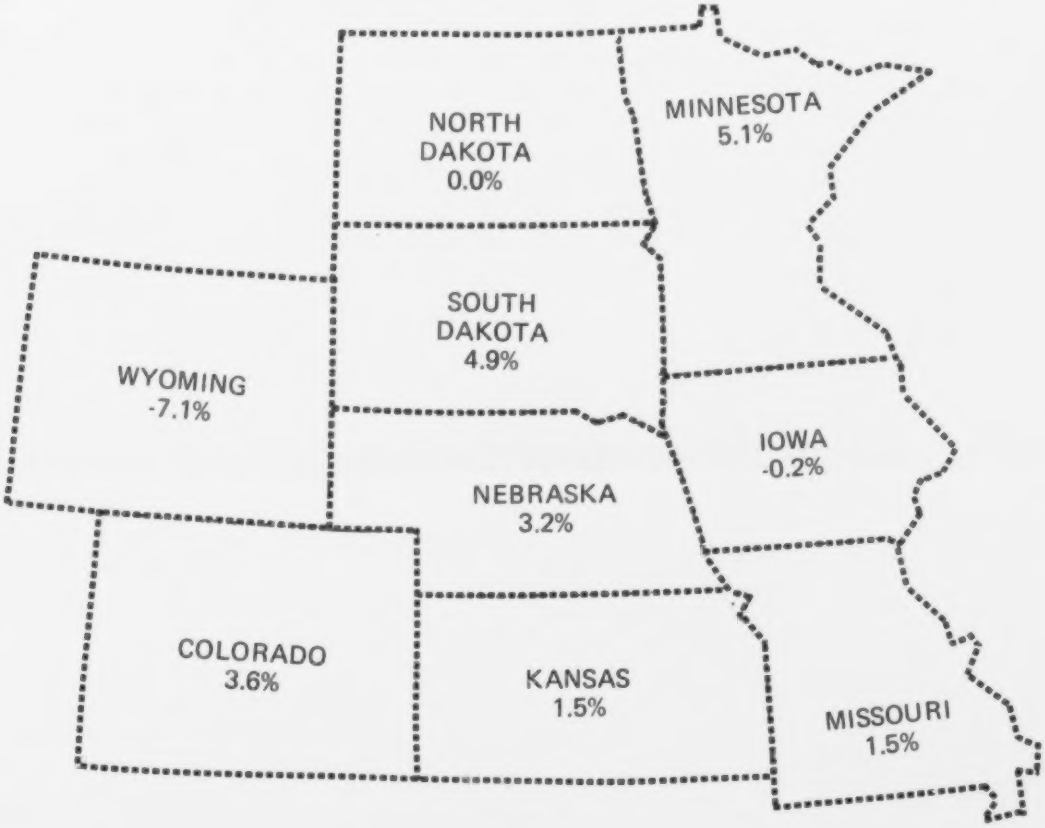
Recovery from the 1982-1984 recession has been slower in the plains states than nationally. Total employment expanded 2.4 percent in the plains states, compared with 4.5 percent nationally. Among the plains states, the pace of recovery has been greater in Minnesota than elsewhere. Nebraska did better than the plains states with a 3.2 percent increase in total employment, but trailed the United States growth rate.

Service employment is lagging in the plains states, a matter of concern since service employment has been a leading growth sector. Manufacturing employment, however, is expanding more rapidly in the plains states than nationally.

Diversification of the economy is an important factor in determining the extent of employment recovery. The larger, more diverse states of Minnesota and Colorado are doing better than the smaller, less stratified states of the region.

DONALD E. PURSELL

Chart 1
Change in Employment
May-June 1982 through May-June 1984
(in percent)



Plains Average = 2.4%

Review and Outlook

Nebraska's real output declined 0.8 percent July-August 1984. Agriculture and construction dropped, while manufacturing and trade advanced.

The Bureau of Business Research's net physical volume index for agriculture plummeted 13.1 percent on a month-to-month basis. This fall resulted from a large decrease in cash farm marketings August 1984 compared with August 1983. Marketings were down, but prices received by Nebraska's producers actually increased 1.6 percent on a year-to-year basis.

In contrast to the decline in the agriculture sector, the nonagriculture sector increased 1.1 percent July-August 1984. Construction recorded a 1.1 percent decrease, manufacturing a 1.5 percent gain, distributive trade a 1.2 percent rise, and government a 0.6 percent jump.

Final August 1984 retail sales were not available as this was written. Preliminary indications are that sales rose from a year ago. Nonmotor vehicle sales were up more than vehicle sales. It is of interest that motor vehicle prices have advanced more rapidly than nonmotor vehicle prices. The commodity component of the consumer price index is up 2.9 percent on a year-to-year basis, while the motor vehicle price index is up 11.5 percent. Restrictions on Japanese automobile sales may have had a substantial impact upon vehicle prices of both domestic and imported vehicles.

(continued on page 5)

ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

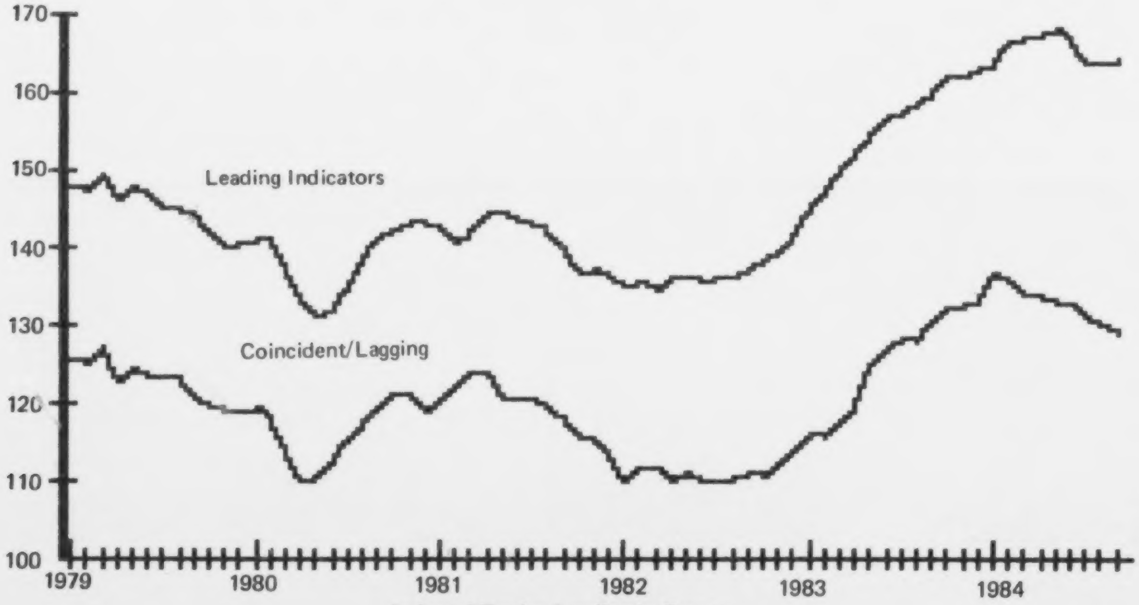
August 1984	Current Month as Percent of Same Month Previous Year		1984 to date as percent of 1983 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	107.0	108.8	105.5	110.5
Agricultural	94.2	96.3	89.7	96.3
Nonagricultural	108.6	109.2	108.0	110.9
Construction	107.0	112.1	129.0	119.7
Manufacturing	112.5	110.7	115.7	114.5
Distributive	106.9	109.2	103.3	109.9
Government	111.4	105.8	113.1	106.6
Physical Volume	102.8	104.9	100.8	106.0
Agricultural	92.7	93.4	85.9	89.3
Nonagricultural	104.3	105.3	103.5	106.5
Construction	103.9	108.9	124.6	115.6
Manufacturing	109.7	108.4	112.2	111.3
Distributive	102.5	104.7	99.0	105.3
Government	103.7	100.8	104.4	100.4

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	368.7	425.5
Agricultural	286.0	327.2
Nonagricultural	381.0	428.7
Construction	306.6	415.0
Manufacturing	386.3	331.3
Distributive	379.1	483.5
Government	431.4	431.9
Physical Volume	127.7	144.2
Agricultural	114.4	124.9
Nonagricultural	129.7	144.9
Construction	88.6	120.0
Manufacturing	155.4	130.3
Distributive	121.1	154.5
Government	154.1	148.3

The distributive indicator represents a composite of wholesale and retail trade, transportation, communication, and utilities, finance, insurance, and real estate, and services. The physical volume indicator represents the dollar volume indicator adjusted for price changes—see Table 5, page 5.

United States



Index of Twelve Leading Indicators
Ratio, Coincident to Lagging Indexes
1967 = 100

(continued from page 4)

The Nebraska economy has two strikingly different components. The metropolitan areas of Lincoln and Omaha are expanding, but the nonmetropolitan areas have grown little in the past year. Gains in employment, retail sales, and income are concentrated in the metro areas.

The growth recorded in the metro areas will likely slow in 1985 because real output and employment growth is slowing nationally. The chart on page 4 shows the leading economic indicators series and the ratio of coincident to lagging indicators. The series of leading indicators frequently turns before the economy. As the chart indicates, the series turned down in the second quarter of 1984.

The ratio of coincident to lagging indicators frequently moves before the leading indicators series. It turned down in January of 1984 and was followed by the composite series of leading economic indicators.

These two factors forecast a slowdown in growth. Employment and real income gains are likely to be limited in 1985.

The implications for Nebraska are many and varied. With smaller national income and employment gains consumers will eat less beef, which could impact Nebraska's ranchers. A slower expansion of the national economy will also affect the growth of wage and salary payments in the metropolitan parts of the state.

The slowdown is not without its favorable aspects, however, because interest rates are expected to decline further in 1985 as the economy's rate of growth falls. On balance, 1985 will likely be a less favorable year for Nebraska than 1984. The metropolitan components of the state's economy will continue to expand, but at a lower rate. Little change is foreseen in the nonmetropolitan regions of the state's economy. Grain and livestock prices will be largely unchanged compared to 1984 prices. A decline in interest rates, however, will be a positive factor influencing all sectors of the Nebraska economy.

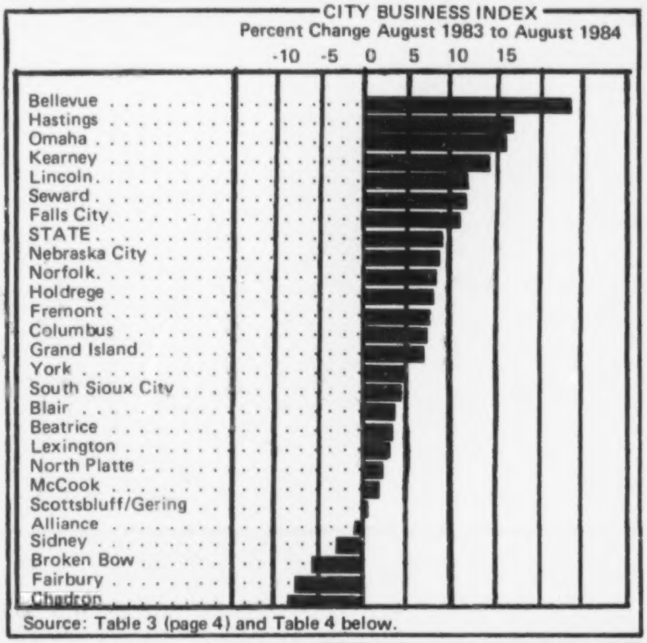
A recession can be avoided in 1985 if the Federal Reserve establishes a more expansionary monetary policy. Since inflation is not a serious threat and the Federal Reserve has maintained tight control over the money supply, a less restrictive policy in the coming twelve months is possible. An accommodative monetary policy may be sufficient to avoid a recession in 1985. The chances of a recession in 1985 are now rated at one in three.

DONALD E. PURSELL

5. PRICE INDEXES

August 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	313.0	104.2	104.3
Commodity component	281.4	102.9	103.6
Wholesale Prices	310.9	102.0	103.0
Agricultural Prices			
United States	262.0	103.1	107.8
Nebraska	250.0	101.6	104.6

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.



Source: Table 3 (page 4) and Table 4 below.

4. CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	100.6	119.9	96.3
Alliance	97.8	57.4	104.0
Beatrice	99.9	52.2	105.7
Bellevue	101.2	115.5	98.7
Blair	99.9	88.6	91.3
Broken Bow	100.4	48.8	104.5
Chadron	102.6	9.0	83.8
Columbus	100.4	121.9	95.5
Fairbury	100.9	28.3	90.8
Falls City	99.5	167.8	98.6
Fremont	100.4	264.5	91.3*
Grand Island	100.1	95.0	114.1
Hastings	100.6	432.7	92.7
Holdrege	99.8	85.1	72.4
Kearney	101.4	191.1	100.5
Lexington	100.2	168.9	90.2
Lincoln	101.3	93.6	96.5
McCook	98.4	141.6	98.1
Nebraska City	100.1	219.9	84.1
Norfolk	100.3	137.0	92.4
North Platte	101.4	67.8	96.8
Omaha	101.2	142.9	97.3
Scottsbluff/Gering	100.4	64.8	84.5
Seward	100.9	241.8	91.0
Sidney	98.9	34.7	89.4
So. Sioux City	99.5	144.8	113.4
York	100.5	69.4	96.3

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

ECONOMIC PROJECTIONS FOR THE STATE OF NEBRASKA: 1984-1995

The Bureau of Business Research has recently completed a study projecting the state's economy from 1984-1995. Annual forecasts for gross state product, personal income, and employment are contained in the report. Gross state product is projected by sector. (Sectors included are agriculture, mining, construction, manufacturing, trade, finance, insurance, and real estate, transportation, communication, and utilities, services, and government.)

Some of the highlights of the report include:

*The Nebraska economy of the 1990s will closely resemble the Nebraska economy of 1984. Change will be slow and nearly imperceptible.

*The Nebraska economy is expected to expand at approximately 3.25 percent per year in terms of real output 1984-1995, about the same rate established 1960-1983.

*The Nebraska economy will continue to grow more slowly than the national economy over the eleven years 1984-1995.

*Manufacturing and services will continue to increase as a proportion of gross state output, with agriculture and construction declining to steady 1984-1995.

*If Nebraska is to grow more rapidly than the nation (as it did in the 1970s) over the next eleven years, agriculture exports will have to increase above current levels—an event considered unlikely in the judgment of the forecasters. This element of the forecast is subjective, since it is impossible to forecast worldwide weather conditions.

*Real personal income increased 3.7 percent in the 1960s in Nebraska, compared with 4.4 percent nationally. In the 1970s, growth rates dropped to 1.7 percent for Nebraska and 2.4 percent per year for the United States.

*Output from the Nebraska economy during the 1960s and 1970s has slowly tilted toward manufacturing and services, away from agriculture and construction.

*Nebraska's gross state product increased more rapidly than United States gross national product in the 1970s, but it recorded slower growth in the 1960s than gross national product.

The report was prepared for the Citizens Commission for the Study of Higher Education. Copies of the report are available from the Bureau of Business Research for $15.00. This charge is necessary to cover reproduction and distribution costs. Checks should be payable to the Bureau of Business Research.

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CHANGES IN GENERAL REVENUES AND EXPENDITURES OF NEBRASKA GOVERNMENTS

This article examines nearly two decades of change in general revenues and expenditures for the sum of Nebraska's state and local governments and for the national government. To account for the impacts of inflation and changes in income (a rough indication of the ability to pay) and to allow relative comparison, revenues and expenditures are expressed as values per $1000 personal income. The results are presented in Figures 1-4 on pages 2 and 3. The sources for these data are the U.S. Bureau of the Census, *Governmental Finances in 1982-1983* and comparable publications for previous years.

General Revenues

Upon examination of these figures, a general pattern emerges for both Nebraska and the United States. Both expenditures and revenues grew rapidly during the late 1960s and early 1970s, fluctuated and peaked in the mid 1970s, and fell during the late 1970s and early 1980s. Even though the overall trends were similar, there were differences. Because of the smaller base, Nebraska's charts are much more volatile than those of the United States. Moreover, not all revenue or expenditure series exhibited the same pattern--some steadily declined while others steadily rose.

General revenues come from two main sources--intergovernmental transfers from the federal government and state or local governments' own sources. These own sources are comprised of taxes (property, sales, individual and corporate income, and others), current charges for hospitals, education, etc., and miscellaneous revenues such as interest earnings. Figures 1 and 2 review some of the components of general revenues, and show that historically Nebraska's governments have been more reliant on property taxes than on intergovernmental transfers, general sales taxes, and income taxes compared to the national average.

The charts show that Nebraska's general revenues amounted to $145 per $1000 personal income during fiscal year 1965-66. They rose steadily until 1971-72, then dropped sharply in 1973-74 as personal income was pushed upward at a faster rate than revenues by increases in farm exports. Revenues peaked at $206 per $1000 personal income in 1976-77 (a period of slow growth in income), gradually declined until their sharp drop in 1981-82, then increased to their current level of $192 per $1000 personal income. 1982-83 also represented a period of slow growth in personal income. The lesson to be learned from this exercise is that year-to-year changes are subject to a variety of forces and should be viewed with caution. The purpose of these charts in Figures 1-4 is to discern longer term trends rather than to explain year-to-year fluctuations.

Since more than 80 percent of Nebraska governmental revenues come from their own (Nebraska) sources, it is not surprising that this component of revenue closely follows the movement of general revenues. Therefore, it would be more propitious to review taxes. Before examining the trend in Nebraska taxes, it is necessary to briefly review a history of the laws pertaining to them.

In 1966, voters approved a constitutional amendment abolishing the property tax as a source of revenue for the state government. The Revenue Act of 1967 adopted sales and income taxes to replace property taxes. The 1969 Legislature enacted a homestead exemption law. Since that time, increasing numbers of property classes have been declared exempt from property taxes. Legislation in 1972 provided for partial exemption of agricultural income-producing machinery and equipment, business inventories, livestock, grain and seed, and poultry, fish, and fur bearing animals. The size of the exemption increased annually between 1973 and 1977. Successive legislatures totally exempted all of the above items except business inventories and livestock in 1978; business inventories were totally exempted in 1979; and total livestock exemptions followed in 1980. At the same time, legislatures have appropriated some measure of funding to replace revenues lost by property tax exemptions each fiscal year since 1978-79.

Even with the above changes, total taxes followed a pattern similar to general revenues, although over a much smaller range. They began at $93 per $1000 personal income in 1965-66, and stood at $106 in 1982-83, peaking at $126 in 1976-77. Property taxes, on the other hand, have fallen since 1965. In fiscal 1965-66 property taxes stood at $67 per $1000 personal income. By 1982-83 these taxes had dropped to $44 per $1000 personal income. It is difficult to observe the effect of the various exemptions on individual years because of previously mentioned changes in income and because local government might have shifted the burden to other classes of property. Two things are certain, however; first, relative property taxes have decreased by 1/3 between fiscal 1965-66 and fiscal 1982-83; and second, this decline has been highly concentrated in selected classes of property.

Although sales and income taxes were not reported separately in the census publications until 1972-73, it requires little imagination to visualize their rapid growth from their inception in 1968 until fiscal 1972-73. During the period fiscal 1972-73 to fiscal 1982-83, Nebraska has consistently relied more heavily on sales

(continued on page 2)

(continued from page 1)

taxes than on income taxes. Sales taxes went from $18 per $1000 personal income in 1972-73 to $23 per $1000 personal income in 1982-83. Over the same period income taxes rose from $15 to $19 per $1000 personal income. With the elimination of sales

(continued on page 3)

Figure 1
Revenues of Nebraska State and Local Governments,
Fiscal 1965-66 to Fiscal 1982-83
(Per $1000 Personal Income)

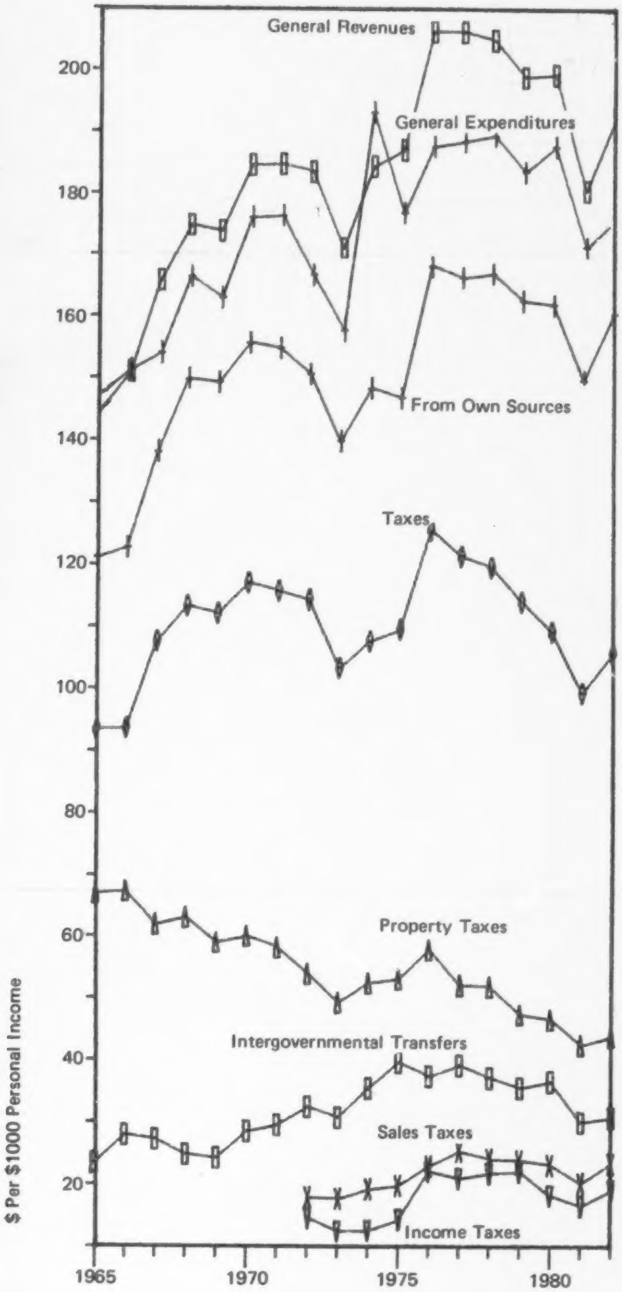
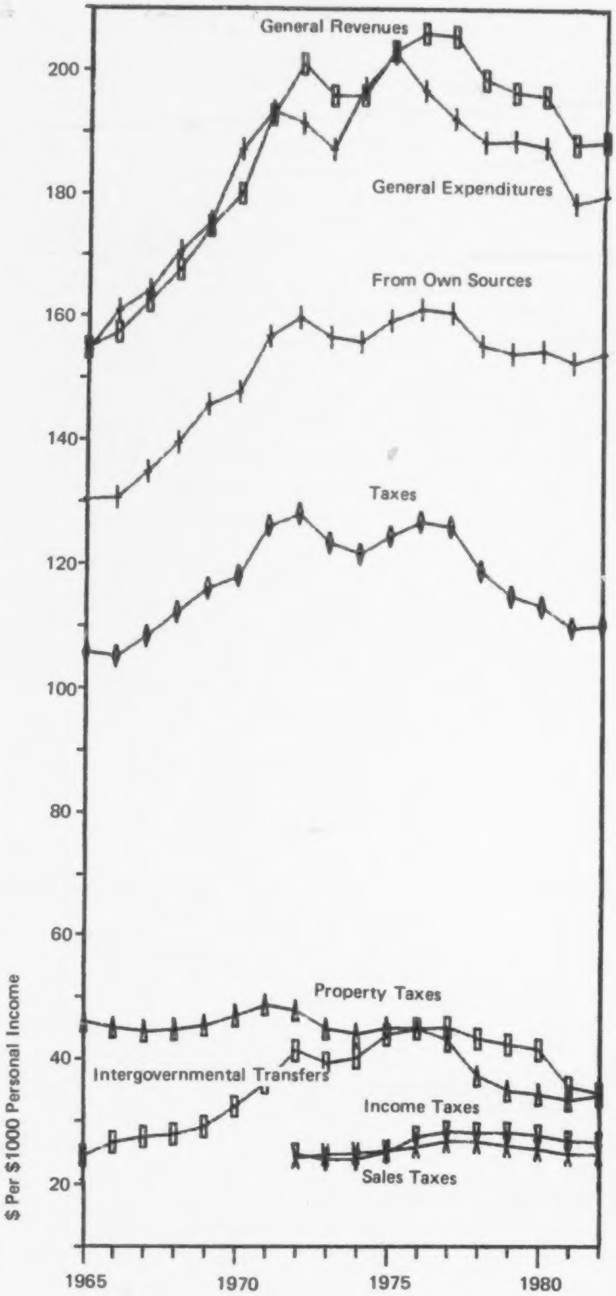


Figure 2
Revenues of U.S. Governments
Fiscal 1965-66 to Fiscal 1982-83
(Per $1000 Personal Income)



Source for Figures 1-4: U.S. Bureau of the Census, *Governmental Finances in 1982-1983* and comparable publications for previous years.

(continued from page 2)

taxes on food for home use, it is likely that in future years the relative positions of sales and income taxes will switch.

Another major source of revenues for Nebraska governments has been transfers from the federal government. Throughout the period under analysis, transfers have been larger than either sales or income taxes, starting at $24 per $1000 personal income in 1965-66, nearing the $40 mark in 1975-76, and falling to $31 per $1000 personal income in 1982-83. If these transfers from the federal government are cut in future years, Nebraska's revenues could be reduced or the structure changed significantly. This, coupled with additional property tax exemptions, will place increasing pressure on sales and income taxes.

General Expenditures

Because revenues eventually are spent by governments, trends in expenditures may provide further insight. Total expenditures can be found in Figures 1 and 2. For Nebraska, general expenditures were almost always less than geveral revenues–1977-78 was the only exception. For the U.S., however, general revenues exceeded expenditures mainly since the late 1970s. The plots of classes of expenditures can be found in Figures 3 and 4. U.S. and Nebraska expenditures exhibited trends similar to revenues. Generally expenditures grew during the late 1960s and early

(continued on page 4)

Figure 3
Expenditures of Nebraska State and Local Governments
Fiscal 1965-66 to Fiscal 1982-83
(Per $1000 Personal Income)

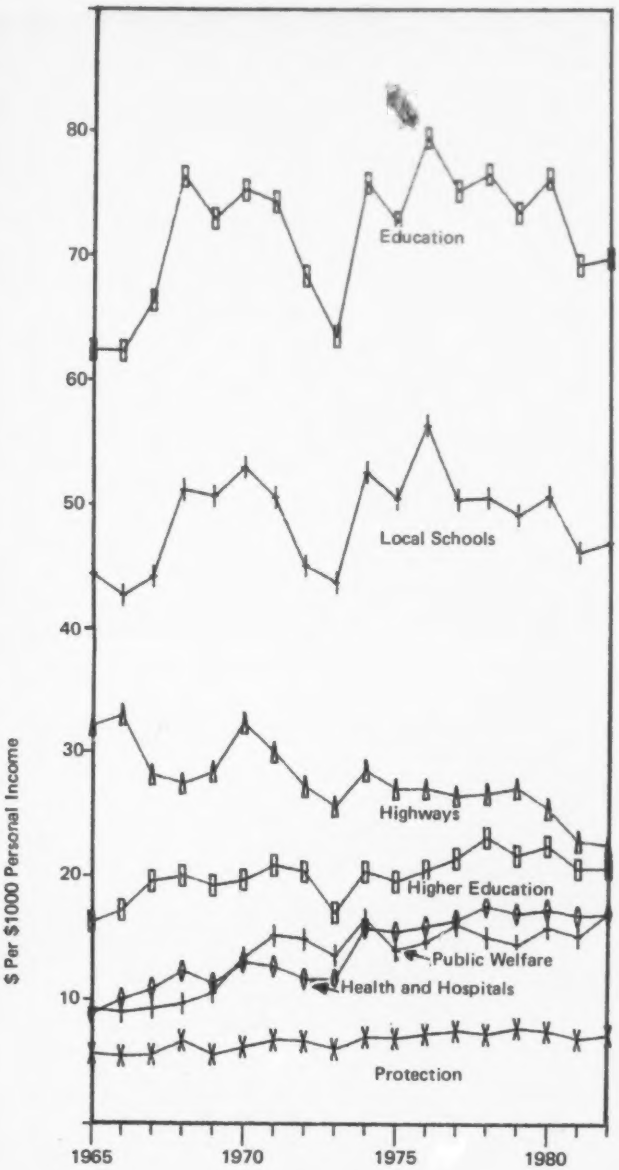
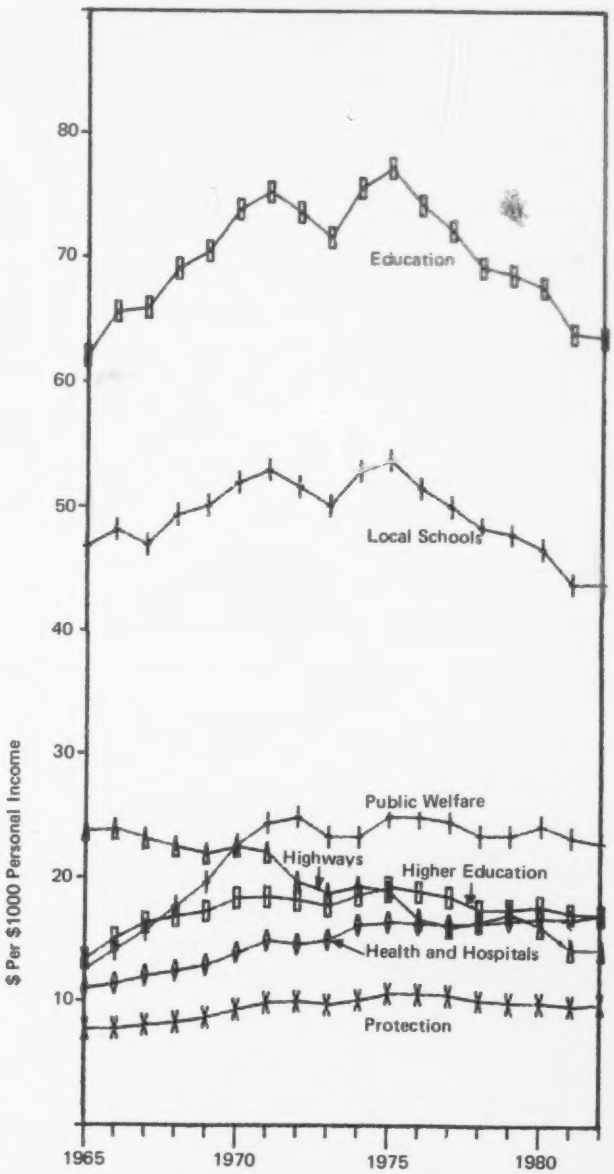


Figure 4
Expenditures of U.S. Government
Fiscal 1965-66 to Fiscal 1982-83
(Per $1000 Personal Income)



(continued from page 3)

1970s and then leveled or declined slightly. Current levels remain above those of 1965-66.

Figures 3 and 4 present some of the major expenditure categories. These categories show that, compared to the national average, Nebraska governments spent more on education (both for local schools and for higher education) and on highways. On the other hand, Nebraska governments spent less on public welfare and police and fire protection.

Expenditures for education in Nebraska is the major component of general expenditures, averaging 35-40 percent of the total. These expenditures have been subject to considerable review in recent years as schools have been faced with declining enrollments. The 1982-83 value of $70 per $1000 personal income is higher than the $62 figure reported in 1965-66 and lower than the 1976-77 high of $79 per $1000 personal income, suggesting a downswing in the relative expenditures for education in Nebraska. The comparable graph for the U.S. shows a more pronounced downward movement since its peak in 1975-76. In fact, the fiscal 1982-83 value of $64 per $1000 personal income is the lowest since 1965-66.

Nebraska's local school expenditures in fiscal 1982-83 stood at $47 per $1000 personal income, down from its 1976-77 peak of $56 per $1000 personal income. Relative local school expenditures at the national level have fallen more dramatically than for Nebraska, as the fiscal 1982-83 value of $44 per $1000 personal income is lowest during the time period under review.

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

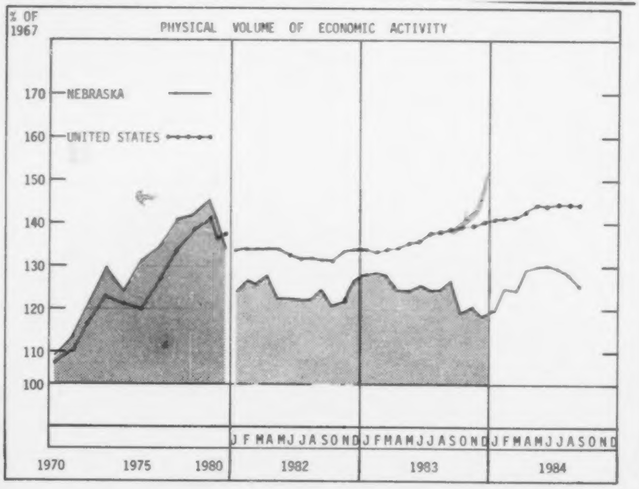
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

Indicator	Current Month as Percent of Same Month Previous Year: Nebraska	U.S.	1984 Year to Date as percent of 1983 Year to Date: Nebraska	U.S.
Dollar Volume	102.4	108.4	105.1	110.2
Agricultural	82.5	95.5	89.0	96.2
Nonagricultural	105.1	108.7	107.7	110.6
Construction	104.9	110.2	125.9	118.5
Manufacturing	105.3	107.4	114.4	113.6
Distributive	103.6	109.5	103.3	109.8
Government	110.9	106.8	112.9	106.6
Physical Volume	98.6	104.4	100.6	105.8
Agricultural	82.5	93.6	85.6	89.7
Nonagricultural	101.1	104.7	103.2	106.3
Construction	101.6	106.7	121.6	114.5
Manufacturing	103.6	105.7	111.2	110.6
Distributive	99.4	105.1	99.0	105.3
Government	103.6	100.6	104.4	100.5

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average: Nebraska	U.S.
Dollar Volume	326.6	426.2
Agricultural	265.0	309.8
Nonagricultural	377.2	429.9
Construction	299.0	413.4
Manufacturing	369.1	322.6
Distributive	378.0	490.4
Government	436.2	433.8
Physical Volume	125.1	144.1
Agricultural	106.4	122.4
Nonagricultural	127.8	144.8
Construction	85.9	118.8
Manufacturing	149.0	127.4
Distributive	120.2	155.9
Government	155.1	149.1



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

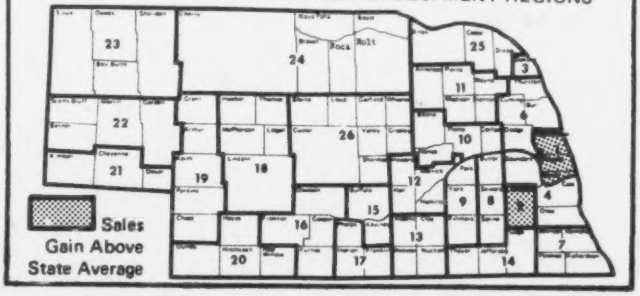
Region Number[1] and City	City Sales[2]: Sept. 1984 as percent of Sept. 1983	Sales in Region[2]: Sept. 1984 as percent of Sept. 1983	Sales in Region[2]: '84 to date as percent of '83 to date
The State	106.1	105.1	109.0
1 Omaha	119.2	116.2	116.0
Bellevue	125.1		
Blair	93.5		
2 Lincoln	111.1	108.8	112.6
3 So. Sioux City	130.7	110.2	106.1
4 Nebraska City	90.9	90.4	98.5
6 Fremont	103.5	95.8	99.0
West Point	82.8		
7 Falls City	86.4	91.5	95.1
8 Seward	103.8	98.6	101.0
9 York	95.5	93.1	101.8
10 Columbus	101.9	94.7	99.8
11 Norfolk	105.4	98.4	98.5
Wayne	87.4		
12 Grand Island	105.4	101.5	103.8
13 Hastings	103.9	98.3	102.7
14 Beatrice	94.3	89.9	95.3
Fairbury	86.8		
15 Kearney	95.7	94.3	104.2
16 Lexington	99.5	92.3	96.4
17 Holdrege	109.4	95.0	98.0
18 North Platte	94.3	96.8	100.5
19 Ogallala	92.5	86.7	100.9
20 McCook	98.5	94.0	98.5
21 Sidney	93.1	98.0	103.6
Kimball	106.2		
22 Scottsbluff/Gering	90.0	89.6	100.0
23 Alliance	92.3	91.0	98.4
Chadron	90.6		
24 O'Neill	104.7	92.4	94.3
25 Hartington	88.6	87.4	90.2
26 Broken Bow	91.6	86.7	92.6

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1984 YEAR TO DATE AS PERCENT OF 1983 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(continued from page 4)

Higher education expenditures in Nebraska also have declined in relative terms recently. Spending for higher education grew rapidly during the late 1960s, leveled for ten years, and peaked two years later than local schools at $23 per $1000 personal income. In fiscal 1982-83, expenditures amounted to $21 per $1000 personal income.

The remaining spending categories in Figures 3 and 4 have exhibited fairly stable trends. Highway expenditures have been the major loser in relative terms. In 1965-66 Nebraska government spent $32 per $1000 personal income but, after 17 years of general decline, in 1982-83 they spent $23 per $1000 personal income. The expenditure categories which showed the most significant growth were public welfare and health and hospitals. Both began in 1965-66 at $9 per $1000 personal income and finished at $17 per $1000 personal income in 1982-83, even though they traveled somewhat different paths to reach their current levels.

Summary

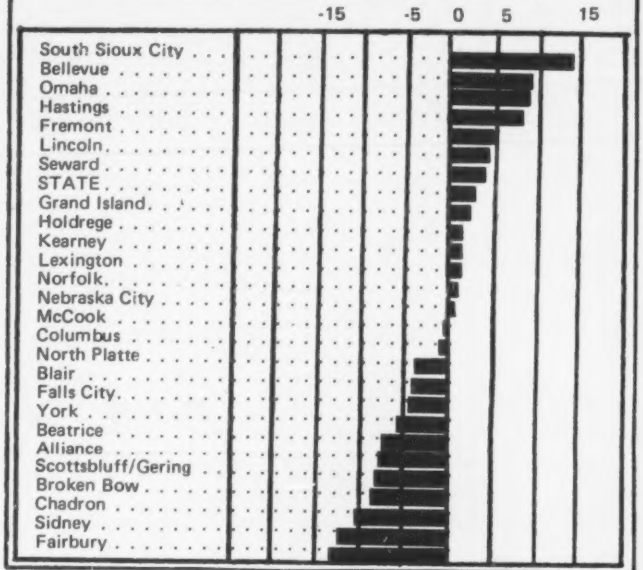
Total general revenues per $1000 personal income for Nebraska's state and local governments peaked in fiscal 1976-77, with 1982-83's value seven percent below the high. Relative taxes also peaked in 1976-77, but the comparable measure for fiscal 1982-83 was sixteen percent lower. Since 1965-66 property taxes have declined in relative importance. They exhibited a period of growth between 1973 and 1977, but as classes of property became totally exempt, property taxes continued their general decline in 1978.

The effect of the decline of property taxes was twofold. First, sales and income tax and other sources of revenue became relatively more important. Second, the benefits of declining property taxes per $1000 personal income were probably distributed in favor of those taxpayers owning exempted property. The remaining taxpayers may have received little, if any, benefit.

Total general expenditures per $1000 personal income peaked later than revenues (1978-79) and fell faster. In 1982-83, relative general expenditures were nine percent below their peak. Expenditures for education (all levels) and highways declined per $1000 personal income, and relative expenditures for public welfare and health and hospitals rose. The most significant growth was recorded by these last two categories. Expenditures per $1000 personal income for both grew approximately 90 percent between 1965-66 and 1982-83.

JEROME A. DEICHERT

CITY BUSINESS INDEX
Percent Change September 1983 to September 1984



4. CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	99.9	117.6	95.9
Alliance	97.5	64.2	114.7
Beatrice	99.1	49.6	95.8
Bellevue	99.9	85.9	86.4
Blair	99.0	100.7	100.0
Broken Bow	99.7	46.3	88.3
Chadron	108.5	16.3	104.7
Columbus	99.6	98.9	98.7
Fairbury	99.9	25.6	101.9
Falls City	99.0	177.3	95.6
Fremont	99.4	262.0	86.1
Grand Island	99.1	119.2	104.9
Hastings	99.7	444.9	88.8
Holdrege	98.8	72.3	69.9
Kearney	101.8	186.1	95.5
Lexington	99.4	165.0	101.6
Lincoln	100.7	98.1	93.7
McCook	98.1	170.7	86.4
Nebraska City	99.2	330.9	85.1
Norfolk	99.3	91.3	100.1
North Platte	100.7	83.5	87.1
Omaha	99.9	137.9	97.7
Scottsbluff/Gering	99.2	65.4	101.5
Seward	99.9	175.3	94.1
Sidney	98.0	23.6	102.1
So. Sioux City	98.7	157.6	97.4
York	99.5	66.0	117.3

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

5. PRICE INDEXES

September 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	314.5	104.2	104.3
Commodity component	282.3	102.8	103.6
Wholesale Prices	309.5	101.4	102.8
Agricultural Prices			
United States	253.0	102.0	107.2
Nebraska	249.0	100.0	104.1

*Using arithmetic average of monthly indexes.

Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

The University of Nebraska-Lincoln, College of Business Administration,
Bureau of Business Research, and Department of Conferences and Institutes present

NEBRASKA ECONOMIC OUTLOOK FOR 1985

Friday, January 25, 1985
Noon-1:15 p.m.
Nebraska Center For Continuing Education

At this forum, Donald E. Pursell and Thomas S. Zorn will explain and explore the 1985 economic outlook for Nebraska based on data compiled at the Bureau of Business Research, University of Nebraska-Lincoln.

The event will be held at the Nebraska Center for Continuing Education, 33rd and Holdrege Streets, Lincoln, Nebraska on Friday, January 25, 1985 at noon. Cost is $10 per person. For reservations, contact the University of Nebraska-Lincoln Department of Conferences and Institutes, 205 Nebraska Center, Lincoln, Nebraska 68583-0929, telephone 402/472-2844.

Thomas S. Zorn is Assistant Professor of Finance at the University of Nebraska-Lincoln. Professor Zorn has taught at the University of Arizona, California State University at Fullerton, and California State University at Northridge. He has published papers in *Journal of Finance, Economic Inquiry, Quarterly Journal of Business and Economics,* and other journals.

Professor Zorn holds a Ph.D. in economics from the University of California at Los Angeles. His research interests include the impact of information upon markets, banking, and the impact of managerial incentives. In 1973 Professor Zorn completed a study on gambling for the Hudson Institute. His experience gives him a keen insight into the problems and prospects for the United States economy.

Dr. Donald E. Pursell, Director of the College of Business Administration's Bureau of Business Research, holds a doctorate in economics from Duke University. Dr. Pursell joined the University of Nebraska-Lincoln in 1976 and has served as Director of the Bureau and Professor of Business Administration since that date.

Dr. Pursell's academic work has focused on labor economics and demographic issues. He has served as an expert on population and income estimation for the National Academy of Sciences and the Ford Foundation. He is a member of the city of Lincoln's Economic Development Commission and works with communities on economic development issues.

Dr. Pursell's current research interests are centered on the impact of the distorted U.S. age structure resulting from the post-World War II baby boom. Dr. Pursell's views on the labor force were presented to the U.S. House of Representatives Select Committee on Aging recently.

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BUSINESS IN NEBRASKA

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Prepared by the Bureau of Business Research, 200 College of Business Administration, University of Nebraska, Lincoln, NE 68588-0406, 402/472-2334

A PERSPECTIVE ON AGRICULTURAL DEBT IN NEBRASKA

A financial crisis currently grips much of the U.S. farming sector. Depressed income levels, debt servicing problems, and high interest rates have forced many farmers to their economic limits. Some have succumbed--for many others, long term survival is in question.

Financial problems appear to be even more acute in Nebraska. Nebraska ranks sixth in the nation in terms of agricultural debt load, with the sector carrying more than $11 billion debt in 1983. The average debt load per Nebraska farm in 1983 was over $177,000. Only in Arizona, California, Colorado and Montana was the per farm average higher.

The level of indebtedness relative to asset value is also quite high in the state. Nebraska's debt to asset ratio as of January 1, 1984 was 30.0, highest of the fifty states. In 1983, more than half the states had ratios of less than 20.0 percent. Only five states had debt to asset ratios of 25.0 percent or more. Recent analysis of the two-thirds of Nebraska farmers who operate with debt reveals an average debt to asset ratio of 50.0 percent for that group.

Deterioration of asset values has been extreme in Nebraska. Land value declines since the 1980-1981 peak exceed 35.0 percent. In some localities the decline is in the 50 percent range. Few other states have experienced these percentage drops.

DEBT LEVEL TRENDS

Agricultural debt has grown rapidly during the past quarter century. In 1960, Nebraska's farming sector had just over $1 billion in debt. By January 1, 1983, the debt load exceeded $11 billion--more than a tenfold increase in just 23 years. Over that period the rate of increase approached 11 percent annually, with the most pronounced changes in the last half of the 1970s when the average annual rate of growth approached 18 percent.

The mix of longer term real estate debt and shorter term nonreal estate debt has varied slightly over the years. The real estate portion rose from 34 percent in 1960 to nearly 44 percent in the mid 1970s. In 1983, however, the real estate portion was 38 percent, due to the dramatic increase of the short term Community Credit Corporation (CCC) loans issued by the federal government.

DEBT BY LENDER GROUP

Federal Land Banks have become the largest lender source for real estate loans. In 1984, nearly 42 percent of Nebraska's farm real estate debt was borrowed from this lender. Federal Land Bank loan volume was nearly $1.8 billion in Nebraska in 1984, more than six times its volume of 1973.

Over the past quarter century, life insurance company lending has steadily declined. Its share of the market is now just half of what it was in 1960, when it was the most prominent long term lender.

A significant portion of farm real estate credit is loaned by individuals. At times this source's share has approached half of the total loan volume. Presently the portion of ag debt attributed to individuals is under one-third. The preponderance of credit obtained from individuals is associated with seller-financed land contracts, in which the seller of the property receives a series of land payments from the buyer over an extended period of time. Such contracts can be mutually beneficial.

While the terms real estate debt and long term debt are generally synonymous, credit on real estate provided by individuals may often be of relatively short duration. Seller-financed

(continued on page 2)

Table 1*
Agricultural Debt in Nebraska, 1960-1984
($ thousands)

	Real Estate Debt		Nonreal Estate Debt		Total Debt	
Year	Amount	Yearly % Change	Amount	Yearly % Change	Amount	Yearly % Change
1960	353,726	--	681,788	–	1,035,514	–
1965	625,426	20.1	962,226	-2.2	1,587,662	5.5
1970	1,099,564	6.1	1,445,524	7.0	2,545,088	6.6
1975	1,537,198	11.4	1,990,555	-2.9	3,527,753	2.8
1976	1,711,298	11.3	2,268,724	14.0	3,980,022	12.8
1977	2,016,830	17.9	2,819,475	24.3	4,836,305	21.5
1978	2,392,610	18.6	3,541,789	25.6	5,934,399	22.7
1979	2,687,014	12.3	4,267,111	20.5	6,954,125	17.2
1980	3,183,635	18.5	4,901,607	14.9	8,085,242	16.3
1981	3,597,244	13.0	5,140,479	4.9	8,737,723	8.1
1982	4,011,587	11.5	5,571,598	8.4	9,583,185	9.7
1983	4,225,931	5.3	6,941,300	24.6	11,167,231	16.5
1984	4,292,400	1.6	6,430,600	-7.3	10,723,000	-4.0

*Estimates for the years 1960-1969 include portions of debt derived from U.S. value estimates.

Source for Tables 1-6: Amols, George and Wilson Kaiser, *Agricultural Finance Statistics, 1960-1984,* Economic Research Service, USDA, Stat. Bulletin No. 706 and others.

(continued from page 1)

land contracts frequently are set up on a three to seven year repayment scheme with one large payment at the end. At that point, it is common for refinancing with an institutional lender to occur. Credit supplied by individuals is frequently of an interim nature prior to establishment of a conventional long term real estate loan.

Nonreal estate debt in Nebraska has historically been provided by banks. However, the proportion of short term debt supplied by this lender source has varied from over 60 percent in the mid 1970s to just over 40 percent in 1983.

Production Credit Associations expanded their role in Nebraska since 1960 from about 5 percent of the nonreal estate credit to more than 10 percent. The loan volume of this source, however, has stabilized during the past few years.

Community Credit Corporation (CCC) loans have varied in Nebraska from 1 percent of the nonreal estate loan volume in 1975-1976 to more than 27 percent in 1983. The character of the federal farm programs and the prevailing commodity market conditions cause changes in the magnitude of this sector's loan volume.

The Farmers Home Administration has played a variable role. Until the late 1970s, this source played a very modest part in the lending picture. However, its function changed quite significantly due to the administration of the Economic Emergency Loan Program.

INTEREST RATE LEVELS

An examination of average interest rates paid by Nebraska farm operators since 1960 shows that the cost of borrowed money has gradually increased. By 1980, average rates paid on real estate and nonreal estate debt were twice the 1960 levels. The rates continued to soar during the 1980s as a national effort to curb inflation was made. By 1982, the average interest charge paid by Nebraska farm operators was around 12 percent.

One should bear in mind that these averages represent a blending of rates on newly issued loans as well as debt outstanding carried forward from previous periods at fixed rates. Therefore, the overall average rate paid by operators at any point will not reflect new loan rates. This disparity has tended to lessen in recent years as agricultural lending institutions have become more sensitive to prime rate levels, and as variable rate mortgages are issued with increasing frequency by real estate lenders.

INTEREST PAYMENTS

Interest paid by farm operators has climbed dramatically since 1960. At the beginning of the 1960s, Nebraska farmers paid less than $50 million in interest annually. By 1982, however, their interest payment obligation exceeded $1 billion. The rate of increase has been most pronounced in recent years. In 1978 the interest volume was still under $500 million. This implies that debt servicing issues have changed significantly in just a few years. There is no precedent for today's debt servicing requirements.

Since 1960, interest payments have grown from less than 5 percent of total farm production expenses to more than 16 percent. Interest as a production expense item is second only to the acquisition costs of livestock.

DEBT RELATIVE TO INCOME

A critical facet of the credit issue is the relationship of debt to income, since the latter indicates debt servicing capacity. Has farm income generally trended upward with agricultural debt?

In order to address this question, it is necessary to separate the farm operator portion of the total agricultural debt and compare that against net farm income levels attributed to the farm operator. Since net farm income varies from year to year, an income trend was determined on the basis of three-year moving averages.

The change in the relationship of operator debt level to net farm income is startling. During the 1960s and early 1970s, Nebraska farm operators carried an average of $3 to $4 of debt

(continued on page 3)

Table 2
Farm Real Estate Debt by Type of Lender, Nebraska, 1960-1984
(percentages)

Year	Federal Land Bank	Farmers Home Administration	Life Insurance Companies	All Operating Banks	Individuals and Others
1960	28.9	7.8	34.7	3.8	24.8
1965	22.6	8.4	28.3	3.4	37.3
1970	20.3	8.5	22.3	2.8	46.1
1975	24.5	8.8	20.0	3.3	43.4
1976	27.8	8.4	18.3	3.7	41.8
1977	31.1	8.0	19.0	4.0	37.9
1978	32.4	7.6	20.7	4.0	35.3
1979	34.2	7.1	21.2	3.6	33.9
1980	33.2	11.0	20.0	2.9	32.9
1981	36.7	9.9	19.3	2.5	31.5
1982	40.3	9.9	17.7	2.3	29.8
1983	41.9	9.6	17.3	2.7	28.5
1984	41.9	9.6	16.1	4.2	28.2

Table 3
Farm Nonreal Estate Debt by Type of Lender, Nebraska, 1960-1984
(percentages)

Year	All Banks	PCAs	Federal Intermediate Credit Banks	FHA	Individuals and others	CCC
1960	43.7	5.1	.3	1.2	33.6	16.1
1965	45.5	6.3	.2	1.8	31.1	15.1
1970	48.6	11.7	.3	1.8	17.4	20.2
1975	62.4	18.5	0	.8	17.3	1.0
1976	62.1	17.9	.1	1.5	17.2	1.2
1977	62.3	16.4	.2	1.2	16.9	3.0
1978	53.2	12.9	.3	1.7	16.7	15.2
1979	46.8	10.7	.4	5.0	17.5	19.6
1980	47.6	12.6	1.3	5.4	18.5	14.6
1981	46.5	13.2	1.3	6.7	18.6	13.7
1982	45.0	12.4	.5	7.2	18.1	16.8
1983	41.2	10.1	.4	5.6	15.3	27.4
1984	47.7	10.3	.7	5.8	15.5	20.0

(continued from page 2)

for every dollar of net farm income. A typical farmer with net farm earnings of $15,000 had debt in the range of $45,000 to $60,000. But by 1982, the debt to income ratio for Nebraska farm operators was nearly 12. In other words, a $20,000 net farm income was generated with an accompanying average debt load approaching one quarter million dollars.

The debt to income ratio has widened because debt buildup has outpaced farm income trends, and the interest cost of servicing that debt has diminished operators' remaining net income.

Gross farm income exceeded $7 billion in 1982, more than twice the 1972 level. Because of rapidly rising farm production expense levels, net farm income to operators has not followed suit. Total net farm earnings during the first three years of the current decade have averaged less than 80 percent of annual levels of the 1970s in nominal dollars and less than 60 percent in constant (purchasing power) dollars.

The cost of operator credit has contributed to this phenomenon. The annual interest charge during the 1980s has been more than three times the average charge of the 1970s. Of course, debt expansion and the high cost of credit are not the sole reasons for the depressed farm economy. Many other factors have contributed to the current ag situation. Nevertheless, one can not disregard the fact that interest on borrowed capital has been taking ever larger chunks of net earnings to farmers.

CONCLUSIONS AND IMPLICATIONS

We are witnessing a severe financial problem within the agricultural production sector. The rapid debt buildup in the farm sector coupled with high interest rates have taxed producers' debt servicing capacity to the limit. In 1983, Nebraska farmers paid more than $1 billion interest on debt, leaving a net farm income of less than $400 million.

Nebraska's farm sector entered the decade of the 1980s in a vulnerable condition. The sector had been "economically bloated" on readily available and reasonably priced credit. When the cost of that credit shot upward, the consequences of heavy indebtedness became painfully real. Many producers could not

(continued on page 6)

Table 4
Average Annual Interest Rate Paid by Nebraska Farm Operators
By Type of Debt, 1960-1982†
(percentages)

Year	Real Estate*	Nonreal Estate**	Total
1960	5.2	4.7	4.8
1965	6.2	5.3	5.6
1970	6.7	6.4	6.5
1975	7.7	8.1	7.9
1976	8.4	9.0	8.8
1977	8.7	9.0	8.9
1978	8.8	8.4	8.5
1979	9.4	9.2	9.3
1980	10.0	10.7	10.4
1981	11.2	12.4	11.9
1982	11.5	12.1	11.9

†Represents annual interest charges paid by farm operators divided by debt held by this group. Interest charges for the years 1960-1982 are unpublished data supplied by Economic Research Service, USDA.

*Excluding households

**Excluding Commodity Credit Corporation loans

Table 5
Interest Paid by Farm Operators*
And Relationship to Total Farm Production Expenses for Nebraska
1960-1983
($ millions)

Year	Interest Expense	Other Expense	Total Expenses	Interest As Percent of Total
1960	47.1	943.2	990.3	4.8
1965	83.5	1,212.7	1,296.2	6.4
1970	153.6	1,748.3	1,901.9	8.1
1975	260.4	2,923.6	3,184.0	8.2
1976	325.6	3,256.7	3,582.3	9.1
1977	402.0	3,541.6	3,943.6	10.2
1978	472.8	4,148.6	4,621.4	10.2
1979	594.7	5,136.2	5,730.9	10.4
1980	774.1	5,434.5	6,140.4	12.6
1981	956.9	5,686.5	6,554.0	14.6
1982	1,055.3	5,689.9	6,639.2	15.9
1983	1,019.5	5,313.4	6,332.9	16.1

*Excluding interest on farm households

Table 6
Comparison of Farm Operator Debt and Net Farm Income For Nebraska
1960-1982
($ millions)

Year	Total Debt*	Net Farm Income (3-Year Moving Average)**	Debt to Income Ratio***
1960	971.6	292.2	3.3
1965	1,483.2	389.5	3.8
1970	2,370.2	538.8	4.4
1975	3,284.4	733.8	4.5
1976	3,707.2	648.4	5.7
1977	4,509.7	546.7	8.3
1978	5,540.0	683.9	8.1
1979	6,501.2	668.7	9.7
1980	7,553.9	759.7	9.9
1981	8,151.3	704.8	11.6
1982	8,934.9	772.7	11.6

*The summation of total real estate debt and total nonreal estate debt multiplied by the respective portions of each held by active farmer operators. The percentage portions held by active farmers were derived from the Bureau of Census 1979 Farm Finance Survey and are assumed constant over the time period.

**Net farm income after inventory adjustment. The 3-year moving average centers on the year reported.

***Total operator debt divided by average net farm income of operators.

Review and Outlook

Output from Nebraska's nonagricultural sector of the economy increased 0.5 percent in October 1984 compared with one month previous. The Bureau of Business Research's net physical volume index is a measure of goods and services produced by the Nebraska economy. Data for the agriculture sector were not available when this was written.

Construction and manufacturing recorded declines, while retail and wholesale trade and the government sector registered gains. The construction component of the Bureau of Business Research's index dropped 2.8 percent on a month-to-month basis. Higher interest rates in June and July were an important factor in explaining depressed construction activity.

Manufacturing recorded a 0.2 percent decline on a month-to-month basis. After rising sharply from the low of the 1982-83 recession, the manufacturing component of the index has reached a plateau. The index is well below its 1979 peak, suggesting that output from the Nebraska manufacturing sector is below that recorded in 1979-80. Employment in the Nebraska manufacturing sector is now 91,000, up from the recessionary low of 80,000 in early 1983, but down from a high of 100,000 recorded in 1979-80.

The distributive trade sector and the government sector recorded modest increases on a monthly basis. These indexes have changed little over the past few quarters.

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

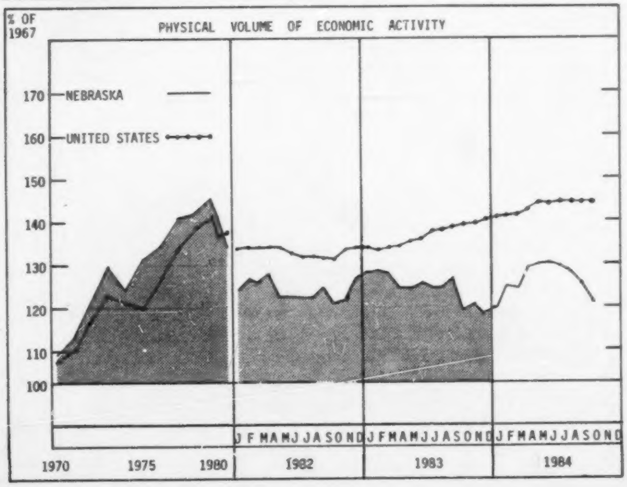
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

October 1984 Indicator	Current Month as Percent of Same Month Previous Year: Nebraska	U.S.	1984 to date as percent of 1983 to date: Nebraska	U.S.
Dollar Volume	N/A	N/A	N/A	N/A
Agricultural	N/A	N/A	N/A	N/A
Nonagricultural	107.3	107.6	107.6	110.3
Construction	104.4	117.9	123.4	118.4
Manufacturing	103.5	106.8	113.2	112.9
Distributive	107.5	107.4	103.7	109.6
Government	111.9	106.5	112.9	106.6
Physical Volume	N/A	N/A	N/A	N/A
Agricultural	N/A	N/A	N/A	N/A
Nonagricultural	103.1	103.8	103.2	106.1
Construction	101.3	114.5	119.3	114.5
Manufacturing	101.8	105.2	110.2	110.1
Distributive	103.2	103.1	99.4	105.1
Government	105.2	101.5	104.5	100.6

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average: Nebraska	U.S.
Dollar Volume	N/A	N/A
Agricultural	N/A	N/A
Nonagricultural	379.8	431.4
Construction	288.8	420.5
Manufacturing	368.9	325.9
Distributive	380.8	490.5
Government	446.8	435.0
Physical Volume	N/A	N/A
Agricultural	N/A	N/A
Nonagricultural	128.3	145.1
Construction	83.5	121.5
Manufacturing	148.3	128.3
Distributive	120.8	155.6
Government	158.1	149.7



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

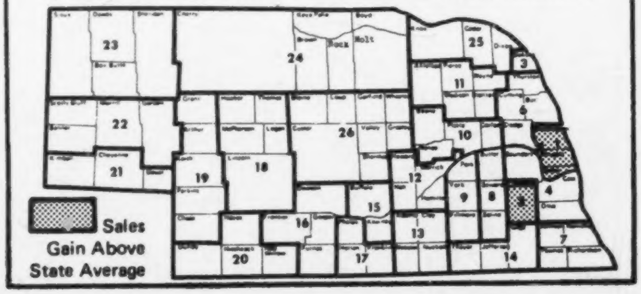
Region Number[1] and City	City Sales[2]: Oct. 1984 as percent of Oct. 1983	Sales in Region[2]: Oct. 1984 as percent of Oct. 1983	Sales in Region[2]: 1984 to date as percent of 1983 to date
The State	107.3	107.8	108.9
1 Omaha	111.2	111.8	115.5
Bellevue	125.6		
Blair	92.6		
2 Lincoln	115.6	112.4	112.6
3 So. Sioux City	98.9	103.0	105.8
4 Nebraska City	107.8	107.5	99.4
6 Fremont	101.8	104.1	99.6
West Point	95.1		
7 Falls City	94.7	104.0	95.9
8 Seward	101.1	97.5	100.7
9 York	98.8	97.0	101.3
10 Columbus	N/A	N/A	102.3
11 Norfolk	110.9	105.7	99.2
Wayne	99.8		
12 Grand Island	103.8	103.6	103.8
13 Hastings	106.8	101.6	102.6
14 Beatrice	88.2	93.9	95.2
Fairbury	97.6		
15 Kearney	100.3	101.1	103.9
16 Lexington	95.0	99.1	96.6
17 Holdrege	92.4	93.4	97.5
18 North Platte	94.0	99.1	100.4
19 Ogallala	99.3	98.9	100.8
20 McCook	105.9	110.2	99.6
21 Sidney	103.3	102.1	103.4
Kimball	96.2		
22 Scottsbluff/Gering	102.2	101.6	100.2
23 Alliance	100.3	102.8	98.9
Chadron	89.4		
24 O'Neill	95.5	97.1	94.6
25 Hartington	94.7	94.3	90.5
26 Broken Bow	85.9	95.3	92.9

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1984 YEAR TO DATE AS PERCENT OF 1983 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(continued from page 4)

Nebraska retail sales rose 7.8 percent in October over year previous levels. Nonmotor vehicle sales were up 7.3 percent, while motor vehicle sales jumped 11.4 percent.

When adjustments are made for price changes, nonmotor vehicle sales grew 4.3 percent, while motor vehicle sales increased 2.4 percent. The commodity component of the consumer price index rose 2.9 percent on a year-to-year basis, much less than the motor vehicle price index 8.8 percent jump. Prices are increasing more rapidly for automobiles and medical services than are most commodities.

The distribution of the changes in retail sales underscores the dichotomy in the Nebraska economy. The larger metropolitan markets of Omaha and Lincoln are gaining in real retail sales. Outside these two metro areas, retail sales are down in most areas.

For instance, nonmotor vehicle sales in Nebraska were up 7.3 percent October 1983 to October 1984. Omaha and Lincoln recorded 11.2 percent and 15.6 percent gains (Table 3). Other cities with substantial increases include Nebraska City, where sales were up 7.8 percent; Norfolk, 10.9 percent; Hastings, 6.8 percent; and McCook, 5.9 percent. Bellevue increased 25.6 percent, but recent annexations may have distorted the sales base.

The weakness in the nonmetropolitan components of the state's economy are evident in regional sales figures. Norfolk and Nebraska City, for instance, recorded substantial increases in nonmotor vehicle sales in October 1984. When motor vehicle sales are included, however, these two markets show smaller gains.

The Nebraska economy continues to expand slowly in output of goods and services. Employment grew somewhat from year previous levels. Personal income is up 6.0 to 7.0 percent before adjustments for price changes.

In the coming twelve months look for continued slow expansion of output, employment, and personal income. These gains, however, will continue to be primarily distributed in the state's two largest metropolitan markets. There will be isolated gains outside Omaha and Lincoln, but overall the nonmetro areas of the state's economy will not grow as rapidly. Diversification, size, and less dependency upon agriculture explain the better showing of the metropolitan economies compared to the nonmetropolitan areas.

The outlook for grain exports is not encouraging. World production continues to expand, leading to greater competition and limited export gains for American grain producers. Livestock prices remain under pressure because of limited increases in consumer per capita consumption of meat.

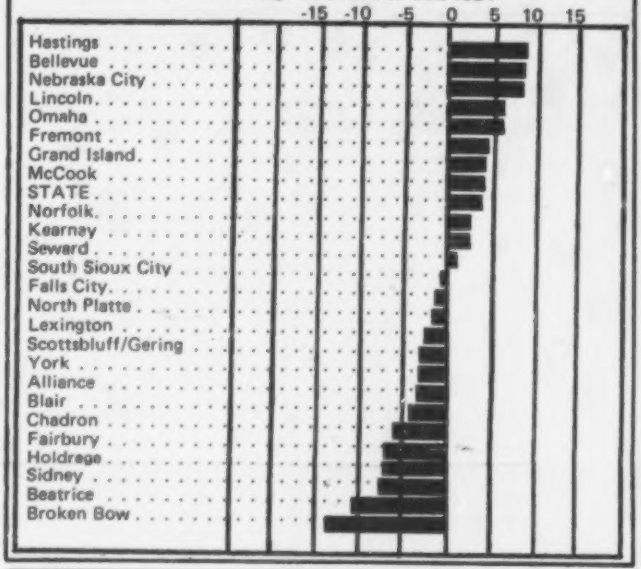
DONALD E. PURSELL

5. PRICE INDEXES

October 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	315.3	104.2	104.3
Commodity component	283.1	102.9	103.5
Wholesale Prices	309.4	101.1	102.6
Agricultural Prices			
United States	259.0	103.6	106.8
Nebraska	249.0	99.2	103.6

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

CITY BUSINESS INDEX
Percent Change Oct. 1983 to Oct. 1984



4. October 1984 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	100.8	114.2	104.6
Alliance	100.5	55.7	126.2
Beatrice	99.4	44.1	104.5
Bellevue	100.7	68.6	75.9
Blair	99.7	100.0	107.1*
Broken Bow	100.5	23.5	122.9
Chadron	115.7	23.3	104.2
Columbus	99.0	95.1	106.4
Fairbury	100.5	37.6	109.0
Falls City	99.6	170.6	105.3
Fremont	100.6	237.2	107.7*
Grand Island	100.3	178.3	92.2
Hastings	100.5	389.6	146.9
Holdrege	99.8	63.2	110.6
Kearney	103.2	141.2	105.3
Lexington	99.7	121.4	117.5
Lincoln	101.3	91.1	103.3
McCook	98.6	170.9	118.2
Nebraska City	99.9	357.1	97.5
Norfolk	100.2	71.6	119.6
North Platte	103.3	126.3	99.9
Omaha	100.7	139.2	102.1
Scottsbluff/Gering	99.9	56.0	104.6
Seward	100.5	130.1	112.6*
Sidney	98.8	22.7	115.5
So. Sioux City	98.8	147.0	103.4
York	100.0	69.1	127.4

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

(continued from page 3)

sustain the debt levels. Their cash flows for debt servicing were inadequate and their assets, which were serving as credit collateral, were depreciating. The cost of credit has become a major controlling variable, not only over income levels generated, but also over sheer economic survival. Nebraska's farming sector will remain vulnerable to credit market conditions because of its debt dependency. High and volatile interest rates will inject sharp influences into farm earnings much like the response of the U.S. housing industry.

It would appear from recent conditions that the level of debt of the farm sector can not be sustained under interest rate levels of the 1980s. A "sell down" process is probably inevitable as individual farmers try to escape the debt trap through partial or major liquidation. In this process, either equity capital must flow into the sector in roughly similar proportions to the debt capital replaced or asset values will decline. The latter has generally been the case in Nebraska over the past 48 months. A depreciating asset situation creates a rippling effect in which successively larger groups of producers face declining collateral positions and worsening debt repayment problems. The financial stress on the rural economy is aggravated further, in turn, creating expanded iterations of the agricultural financial dilemma.

BRUCE B. JOHNSON

Table 7
Gross Income and Net Income from Farming with Emphasis on Interest Payments for Nebraska, 1960-1982*
($ millions)

	Gross Farm Income						Farm Production Expenses			Net Farm Income	
Year	Cash Receipts From Farm Marketings	Government Payments	Non-Money Income	Other Farm Income	Total	Net Change in Farm Inventory	Operator Interest	Other Expenses	Total	Before Interest Payment	After Interest Payment
1960	1,188.0	22.1	56.1	7.3	1,273.5	45.5	47.1	943.2	990.3	375.7	328.6
1965	1,343.2	184.7	73.1	11.6	1,612.6	105.2	83.5	1,212.7	1,296.2	505.0	421.5
1970	2,124.4	203.0	81.6	19.1	2,428.1	-57.7	153.6	1,748.3	1,901.9	622.2	468.6
1971	2,285.8	171.0	79.5	22.6	2,559.0	90.3	165.2	1,867.9	2,033.1	781.4	616.2
1972	2,821.4	233.3	85.9	23.9	3,164.4	79.4	177.1	2,314.0	2,491.1	929.9	752.8
1973	3,943.3	151.8	101.6	30.5	4,227.3	312.8	212.4	3,028.9	3,241.3	1,511.3	1,298.9
1974	4,107.4	21.0	117.2	31.9	4,277.5	-569.2	247.7	2,774.5	3,022.2	933.7	686.0
1975	3,860.1	71.7	129.3	38.6	4,099.7	131.3	260.4	2,923.6	3,184.0	1,307.4	1,047.0
1976	3,841.0	36.6	158.8	40.0	4,076.4	-25.9	325.6	3,256.7	3,582.3	793.9	468.3
1977	3,975.0	92.9	183.9	45.7	4,297.5	76.2	402.0	3,541.6	3,943.6	832.0	430.0
1978	4,679.9	268.6	184.0	49.0	5,181.6	181.5	472.8	4,148.6	4,621.4	1,214.5	741.7
1979	5,918.6	132.7	231.1	62.3	6,344.7	266.3	594.7	5,136.2	5,730.9	1,474.7	880.0
1980	6,465.0	82.9	289.2	61.4	6,898.5	-503.0	774.1	5,438.7	6,212.8	956.8	182.7
1981	6,444.6	101.0	331.7	76.2	6,953.5	897.4	956.9	5,677.6	6,634.5	2,173.2	1,216.3
1982	7,079.7	277.5	337.6	78.9	7,773.7	-335.9	1,055.3	5,667.1	6,722.4	1,770.8	715.5
1983	6,010.4	762.3	308.0	60.6	7,141.3	-336.3	1,019.5	5,400.5	6,420.0	1,404.4	384.9

Source -*Economic Indicators of the Farm Sector: State Income and Balance Sheet Statistics Series,* Economic Research Service, USDA

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WAGE AND SALARY EARNINGS: NEBRASKA AND THE U.S.

INTRODUCTION

How do employee wage and salary earnings in Nebraska compare with the rest of the United States? Conventional wisdom indicates that they are lower. If employee earnings in Nebraska are lower, is the difference due to Nebraska's industry mix? That is, is it because Nebraska's employment is concentrated in low wage industries, or is it because Nebraska's earnings are uniformly lower across all industries when compared to the U.S.? This article addresses these issues. We will see that Nebraska earnings are lower than in the U.S., but that Nebraska's employment distribution is not the reason. We see that although earnings are lower for most industries, they are not uniformly lower.

Besides showing how Nebraska earners compare with their U.S. counterparts, the results have direct implications for the promotion of Nebraska as a state with low wages for economic development purposes. Earnings are not low in all industries.

COMPARISON OF U.S. AND NEBRASKA EARNINGS

Table 1 shows annual average earnings in Nebraska and the U.S. during the period 1978 to 1983. The averages are based on wage and salary earnings for 65 industries comprising 96 percent of the total wage and salary employment in both Nebraska and the U.S.. The farm sector, consisting of proprietors, as well as several minor industries with little or no Nebraska wage and salary employment were excluded from the calculations due to data availability. The average earnings were calculated by dividing total wage and salary earnings by the number of persons with wage and salary earnings (hereafter the 'wage and salary' descriptor will be dropped). Both earnings and employment totals include amounts for full time as well as part time and part year workers.

Table 1
Average Annual Earnings (in dollars)
United States and Nebraska
(excluding Farm)

	United States	Nebraska	Nebraska as % of U.S.	Nebraska with U.S. Employment Distribution
1978	11,899	10,348	87.0	10,386
1979	12,906	11,249	87.2	11,261
1980	14,126	12,298	87.1	12,308
1981	15,415	13,361	86.7	13,409
1982	16,427	14,199	86.4	14,211
1983	17,237	14,851	86.2	14,879

Table 1 and the following tables are derived from unpublished Bureau of Economic Analysis tabulations of employment and earnings by two digit SIC codes, August 1984.

Average annual earnings in Nebraska were about 86 percent of U.S. average annual earnings in 1983. The one percentage point decline in the ratio between 1979 and 1983 suggests a very slight downward trend in the ratio of Nebraska to U.S. average earnings, but cannot be considered significant due to the short length of the period examined.

Graph 1 shows the relationship for the seventeen year period for which data are available. Increases in Nebraska average earnings have closely paralleled the U.S. increases. The ratio of Nebraska to U.S. earnings was between 85.3 percent (1971) and 87.3 percent (1979) for each year during the entire interval, with no indication of a long term trend upward or downward. The 1967 ratio (86.2 percent) is almost idential to the 1983 ratio (86.3 percent).

IMPACT OF INDUSTRY MIX

Nebraska's industrial composition is one possible source of its lower average earnings. Table 2 compares U.S. and Nebraska employment distributions across eleven major industries (the 65 industries examined in this study have been aggregated to 11 in Table 2).[1] Of particular significance is the relative size of the state's manufacturing sector. Manufacturing--particularly durable goods manufacturing--has traditionally been a high wage industry. In Nebraska 12.7 percent of employment was in manufacturing, compared to 17.7 percent for the United States. This difference is entirely due to Nebraska's smaller durable goods manufacturing sector which accounted for only 6.4 percent of the state's employment compared to 11.7 percent for the U.S.. The size of the transportation, communication, and utilities sector is also worth noting. We will see that Nebraska's larger share of employment in this sector offsets the negative impact of the smaller durable goods manufacturing sector.

To examine the impact of Nebraska's employment distribution among industries on earnings, average Nebraska earnings were calculated for each of the 65 industries included in the study. An 'all industry' weighted average earnings was calculated by summing over the 65 average industry earnings using U.S. employment by industry as weights.[2] The result is what Nebraska's average earnings would have been if employment

(continued on page 2)

(continued from page 1)

Table 2
Distribution of Employment, 1983 (percentages)
(excluding Farm)

Industry	U.S.	Nebraska
Agriculture Services	0.6	0.5
Mining	0.8	0.3
Construction	4.3	3.7
Nondurable Manufacturing	6.0	6.3
Durable Manufacturing	11.7	6.4
Transportation, Communication, Utilities	5.2	6.9
Wholesale Trade	5.8	7.2
Retail Trade	17.0	17.5
Finance, Insurance, Real Estate	6.1	6.6
Services	23.0	21.9
Government	20.4	22.8
TOTAL	100.0	100.0

May not sum to 100 due to rounding.

in Nebraska were distributed the same as in the U.S.. This average was calculated for each of the years 1978 through 1983. These averages are shown in the last column of Table 1.

In 1983 average annual earnings for the U.S. were $17,237, while average earnings in Nebraska were $14,851. Average Nebraska earnings would have been $14,879 if Nebraska had the United States employment distribution. Examination of Table 1 indicates that the net impact of Nebraska's employment distribution, although negative, was virtually zero in 1983 and for the previous years as well.

Although the different Nebraska and U.S. employment distributions had no net impact, Nebraska earnings are not uniformly lower across all industries. Nor is the impact of Nebraska's employment distribution uniform across all industries.

COMPARISONS BY INDUSTRY

Table 3 compares U.S. and Nebraska average earnings for each of 65 industries examined in this study. Examination of this table indicates considerable variation among industries in how Nebraska earnings compare with the U.S.. Average earnings are considerably higher in Nebraska in four categories: furniture and fixture manufacturing; security and commodity brokers; combined real estate and insurance; and military. With the exception of military, the first column of Table 3 shows that each accounts for a small part of total Nebraska employment (less than 1 percent). Nebraska's food manufacturing and railroad transportation industries are among the larger sectors in terms of employment and have average earnings that compare favorably with the U.S.. Wholesale trade and health services also account for a relatively large share of Nebraska's employment, but average earnings in Nebraska in these sectors are lower than corresponding U.S. averages.

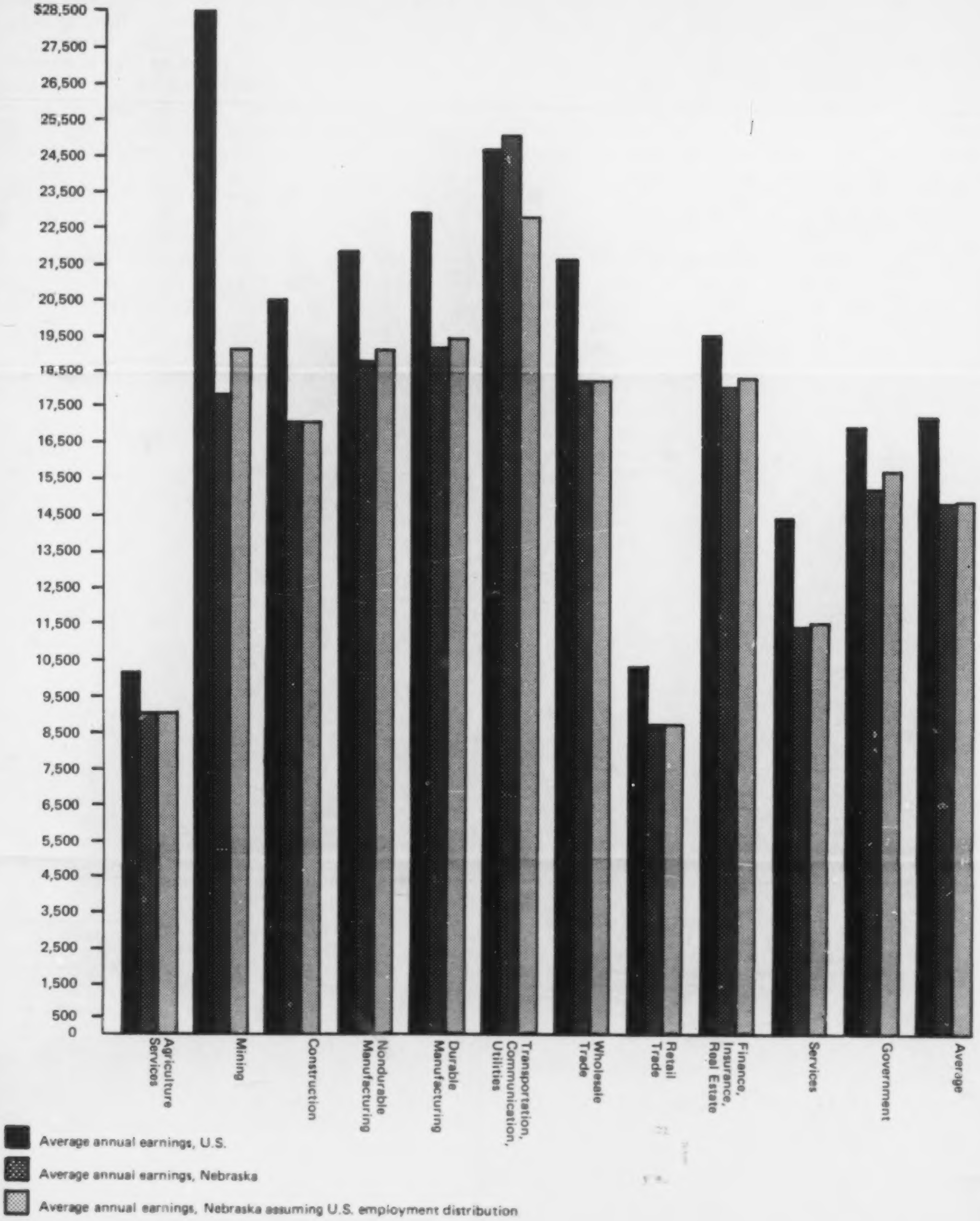
Chart 1 summarizes Table 3 by showing 1983 average earnings for eleven aggregate industries and for all industries combined. Average U.S. earnings, Nebraska earnings, and Nebraska earnings assuming U.S. employment distribution are shown for each industry. The transportation, communication, and utilities sector is of particular interest. Average earnings in Nebraska

(continued on page 6)

Table 3
Average Earnings by Industry, 1983
($)

Industry	(%) Share of State Employment	Nebr.	U.S.	Nebr. / U.S.
Agricultural Services	0.54	8,978	10,086	89
Mining				
Oil & Gas Extraction	0.14	19,573	29,604	66
Nonmetallic Materials	0.15	16,231	22,236	73
Construction				
General & Building Contractors	1.04	16,526	19,661	84
Heavy Construction Contractors	0.69	19,310	24,384	79
Special Trade Contractors	1.94	16,318	19,485	84
Manufacturing-Nondurable Goods				
Food & Kindred Products	3.84	19,263	19,199	100
Paper & Allied Products	0.22	18,415	24,148	76
Printing & Publishing	1.22	15,719	19,119	82
Chemicals & Allied Products	0.39	22,678	27,381	83
Petroleum & Coal Products	0.03	20,095	34,047	59
Rubber & Misc. Plastics	0.61	19,900	19,224	104
Durable Goods				
Lumber & Wood Products	0.28	16,264	16,491	99
Furniture & Fixtures	0.24	18,559	15,297	121
Primary Metal Industries	0.19	23,384	25,940	90
Fabricated Metal Products	0.04	20,085	21,100	95
Machinery, except Electrical	1.62	20,854	23,924	87
Electric & Electronic Equipment	1.21	19,947	22,575	88
Transportation Equip.	0.33	19,261	27,733	69
Motor Vehicles & Equip.	0.35	18,671	29,172	64
Stone, Clay & Glass Products	0.40	18,031	21,322	85
Instruments & Related Products	0.57	15,585	23,155	67
Misc. Manufacturing Industries	0.22	13,392	16,775	80
Transportation, Communication, Utilities				
Rail Transportation	2.12	31,966	31,934	100
Trucking & Warehousing	1.77	19,518	20,469	95
Local & Interurban Transit	0.18	12,821	13,908	92
Air Transportation	0.14	19,522	29,338	67
Transportation Services	0.23	17,401	17,394	100
Communication	1.84	24,933	26,344	95
Electric, Gas & Sanitary Services	0.64	26,017	27,472	95
Wholesale Trade	7.21	18,217	21,591	84
Retail Trade				
Building Materials & Farm Equip.	0.80	11,958	13,818	87
General Merchandise Stores	2.21	9,234	10,133	91
Food Stores	2.56	9,892	11,596	85
Auto Dealers & Service Stations	2.25	13,129	15,251	86
Apparel & Accessory Stores	1.00	7,728	9,171	84
Furniture & Home Furn. Stores	0.60	12,494	13,347	94
Eating & Drinking Places	6.11	5,667	7,240	78
Misc. Retail Stores	1.92	8,873	10,913	81
Finance, Insurance & Real Estate				
Banking	1.70	16,795	17,384	97
Credit Agencies, except Banks	0.76	16,822	17,382	97
Security & Commodity Brokers	0.21	53,307	45,734	117
Insurance Carriers	2.50	18 124	20,269	89
Ins. Agents, Brokers & Serv.	0.58	15,773	19,162	82
Real Estate	0.69	11,904	14,771	81
Combined R.E., Insurance, etc.	0.07	17,871	15,875	113
Holding & Other Investment Co.	0.07	26,219	28,823	91
Services				
Hotels & Other Lodging Places	1.08	7,337	11,152	66
Personal Services	1.04	9,371	10,305	91
Private Households	1.80	3,309	4,575	72
Business Services	3.18	11,976	15,915	75
Auto Repair, Service & Garages	0.63	13,090	14,095	93
Misc. Repair Services	0.29	13,432	16,561	81
Amusement & Recreation Services	0.79	6,592	11,171	59
Motion Pictures	0.15	5,889	18,078	33
Health Services	7.28	14,250	17,134	83
Legal Services	0.49	17,770	24,463	73
Educational Services	1.45	9,865	12,601	78
Social Services	1.07	9,915	9,310	106
Museums, Botanical/Zoological Gardens	0.04	8,870	12,216	73
Membership Organizations	1.85	9,061	11,235	81
Misc. Services	0.75	20,684	24,308	85
Government & Government Enterprises				
Federal, Civilian	2.56	22,625	24,130	94
Military	2.87	16,711	13,033	128
State & Local	17.39	13,884	16,087	86

Chart 1
Average Annual Earnings, 1983



Review and Outlook

Output from the Nebraska economy increased sharply in November 1984. The Bureau of Business Research's net physical volume index jumped 4.3 percent on a month to month basis. All components of the economy, with the exception of construction, recorded gains.

Data revision in the agriculture component accounts for part of the change in the index. Revised data from the United States Department of Agriculture boosted the agriculture component 35.5 percent in Nebraska over the interval October-November 1984. A similar increase was recorded in the United States, although the magnitude was considerably smaller.

Recent information released on grain stocks indicates that plains farmers and ranchers have liquidated grain. One can only speculate that such liquidation is an indication of financial stress.

Prices received by Nebraska producers are 2.0 percent above year ago levels, while United States agriculture producers received prices 2.4 percent higher than one year ago.

The nonagriculture components of the Nebraska economy recorded a solid month to month gain of 1.3 percent. The construction component declined 0.8 percent October-November 1984.

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

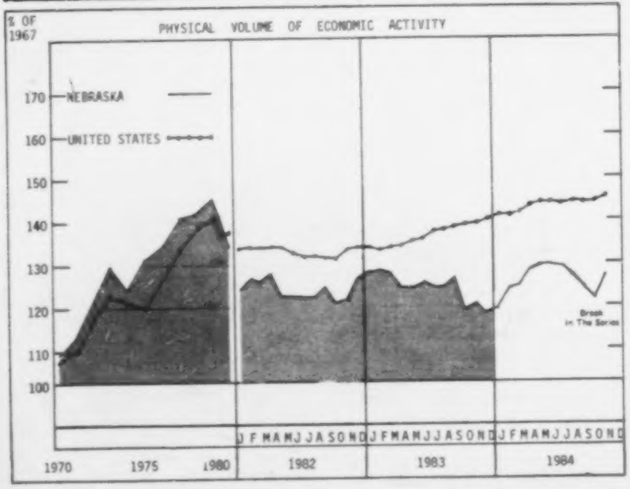
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

November 1984	Current Month as Percent of Same Month Previous Year		1984 to date as percent of 1983 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	111.6	108.3	105.5	109.8
Agricultural	120.9	108.7	89.0	96.2
Nonagricultural	110.6	108.3	107.9	110.1
Construction	104.2	118.4	121.5	118.5
Manufacturing	108.5	107.2	112.8	112.4
Distributive	107.7	108.4	104.1	109.5
Government	129.1	106.4	114.3	106.6
Physical Volume	105.9	104.5	100.9	105.4
Agricultural	118.5	106.2	85.9	90.4
Nonagricultural	104.5	104.5	103.3	105.9
Construction	100.3	113.9	117.3	114.4
Manufacturing	106.3	105.3	109.8	109.6
Distributive	103.6	104.2	99.8	105.0
Government	106.1	101.3	104.6	100.7

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	371.0	432.8
Agricultural	276.1	332.6
Nonagricultural	385.2	436.0
Construction	286.6	420.8
Manufacturing	379.4	330.3
Distributive	385.3	496.2
Government	452.8	437.1
Physical Volume	127.3	145.9
Agricultural	109.1	128.4
Nonagricultural	130.0	146.4
Construction	82.3	120.9
Manufacturing	151.7	129.7
Distributive	122.2	157.4
Government	159.4	149.5



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

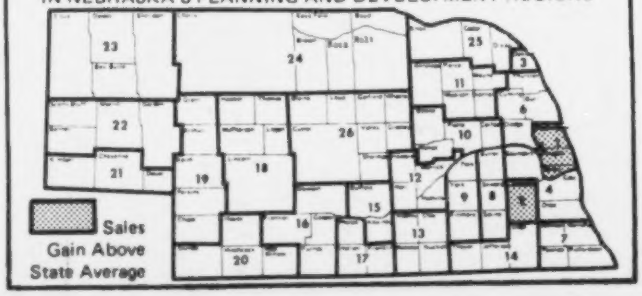
Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	Nov. 1984 as percent of Nov. 1983	Nov. 1984 as percent of Nov. 1983	1984 to date as percent of 1983 to date
The State	106.4	106.8	108.7
1 Omaha	112.5	112.9	115.3
Bellevue	115.3		
Blair	105.7		
2 Lincoln	105.4	108.7	112.2
3 So. Sioux City	105.9	107.4	105.9
4 Nebraska City	109.7	106.2	100.0
6 Fremont	104.1	102.2	99.8
West Point	99.0		
7 Falls City	103.8	107.3	96.9
8 Seward	98.6	103.0	100.9
9 York	102.6	104.2	101.6
10 Columbus	107.8	104.1	102.4
11 Norfolk	105.0	102.8	99.5
Wayne	96.4		
12 Grand Island	100.9	103.0	103.7
13 Hastings	111.6	103.7	102,7
14 Beatrice	98.7	97.1	95.4
Fairbury	98.0		
15 Kearney	109.5	107.6	104.2
16 Lexington	100.1	96.6	96.6
17 Holdrege	102.5	96.6	97.4
18 North Platte	97.1	95.9	100.0
19 Ogallala	102.2	107.4	101.3
20 McCook	111.8	109.8	100.5
21 Sidney	107.5	105.5	103.6
Kimball	101.3		
22 Scottsbluff/Gering	105.5	103.0	100.4
23 Alliance	103.6	106.4	99.5
Chadron	106.6		
24 O'Neill	105.3	101.0	95.1
25 Hartington	109.7	105.0	91.7
26 Broken Bow	99.9	101.0	93.6

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1984 YEAR TO DATE AS PERCENT OF 1983 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(continued from page 4)

Manufacturing registered a 2.3 percent gain, while distributive trade recorded a 1.2 percent gain, and government a 0.8 percent jump. The increase in manufacturing represents a solid monthly gain after months of little change.

November 1984 retail sales were 6.8 percent above year ago levels. When adjustments are made for price changes, total retail sales were up 3.4 percent. Inflation, as measured by the commodity component of the consumer price index, continues to record very little change--it advanced only 2.8 percent over the past 12 months ending November 1984.

Nonmotor vehicle sales in November were 6.4 percent above year ago levels, or 3.5 percent higher when adjustments are made for price changes. November marks the second month for which comparisons can be made on nonmotor vehicle sales without the distortion of the removal of the sales tax on food. Total dollar sales were $661 million in November 1984, compared with $621 million one year ago.

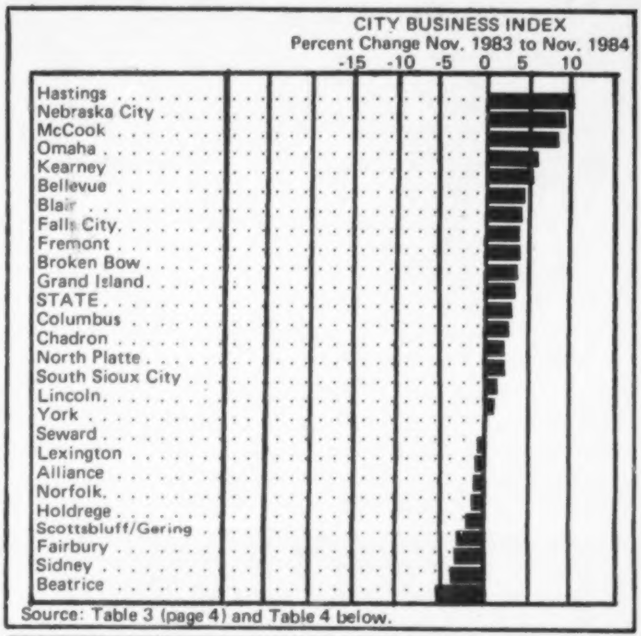
Motor vehicle sales rose 10.4 percent on a dollar volume basis in November 1984 compared with one year ago. When adjustments are made for price changes, motor vehicle sales were up 2.8 percent in real terms. The motor vehicle price index used in adjusting for price changes was 7.4 percent higher in November 1984 than in November 1983.

Cities recording substantial month to month gains included Hastings, Nebraska City, McCook, Omaha, and Kearney. All these communities experienced gains of 5.0 percent or more in their city business indexes. Bellevue, Blair, Falls City, Fremont, Broken Bow, and Grand Island recorded gains larger than the state average. The increase in Hastings resulted from improved retail sales and construction activity, while the increase in Nebraska City was associated with gains in retail sales.

Nebraska's economy continues to expand slowly. Third quarter 1984 personal income increased 9.3 percent over the third quarter of 1983. It is anticipated that output from the Nebraska economy will increase 2.0 to 3.0 percent in 1985. Remember that output is a physical measure of the volume of goods and services produced by the Nebraska economy.

Nebraska income should also continue to grow in 1985. Personal income should increase around 6.0 percent before adjustment for price changes. Employment will expand slowly, increasing 1.0 to 1.5 percent over the coming 12 months.

DONALD E. PURSELL



CITY BUSINESS INDEX
Percent Change Nov. 1983 to Nov. 1984

Source: Table 3 (page 4) and Table 4 below.

4. November 1984 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	101.8	107.2	105 1
Alliance	101.2	73.5	125.0
Beatrice	100.4	44.3	78.0
Bellevue	101.2	72.2	77.4
Blair	101.2	154.6	102.2*
Broken Bow	101.9	221.3	119.4
Chadron	114.0	29.5	135.6
Columbus	100.1	100.4	103.7
Fairbury	101.6	62.2	99.8
Falls City	100.8	187.9	105.9
Fremont	101.8	165.7	83.6*
Grand Island	101.6	196.4	120.0
Hastings	101.8	332.6	NA
Holdrege	101.2	62.6	116.9
Kearney	104.6	104.6	130.3
Lexington	100.7	108.5	119.0
Lincoln	102.1	83.0	109.3
McCook	99.7	243.0	97.7
Nebraska City	101.1	311.7	108.1
Norfolk	101.4	59.7	99.9
North Platte	104.8	159.1	115.9
Omaha	101.2	125.2	102.3
Scottsbluff/Gering	101.1	34.0	117.5
Seward	101.7	114.1	114.5
Sidney	100.0	28.2	126.6
So. Sioux City	98.7	112.4	109.8
York	101.3	89.9	105.4

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

5. PRICE INDEXES

November 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	315.3	104.0	104.3
Commodity component	283.0	102.8	103.4
Wholesale Prices	310.4	101.6	102.5
Agricultural Prices			
United States	259.0	102.4	106.4
Nebraska	253.0	102.0	103.4

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

(continued from page 2)

exceed the U.S. in this sector. This is because Nebraska has a larger share of employment in the higher earnings railroad and trucking industries within this category. This is the only aggregate category where Nebraska's employment distribution is more favorable than the United States. In seven other categories, average earnings in Nebraska are lower than the U.S. in part because of the industry employment distribution within the aggregate category. The positive impact of Nebraska's employment distribution in the transportation, communication, and utilities sector offsets the negative distribution effects in the other aggregate categories resulting in the minor overall impact shown in Table 1 earlier.

SUMMARY OF FINDINGS

Wage and salary earnings in Nebraska averaged about 86 percent of the U.S. level in 1983. This ratio changed less than one percent during the six year period examined. There are important differences in Nebraska's distribution of employment (particularly manufacturing) when compared to the U.S., but the net impact of these differences on earnings is nearly zero. The employment distribution in Nebraska did not contribute to lower average earnings. Although overall average earnings are lower in Nebraska when compared to the U.S., there is considerable variation in the Nebraska to U.S. ratio from industry to industry. Particularly noteworthy are the food manufacturing and railroad transportation industries where average earnings in Nebraska equal those in the U.S..

These findings raise additional questions. Do living cost or 'quality of life' differences account for the observed earnings difference between Nebraska and the United States? To what extent does unionism contribute to the Nebraska U.S. differential as well as the industry to industry difference in the Nebraska to U.S. ratios? These are issues requiring additional research.

DOUGLAS O. LOVE

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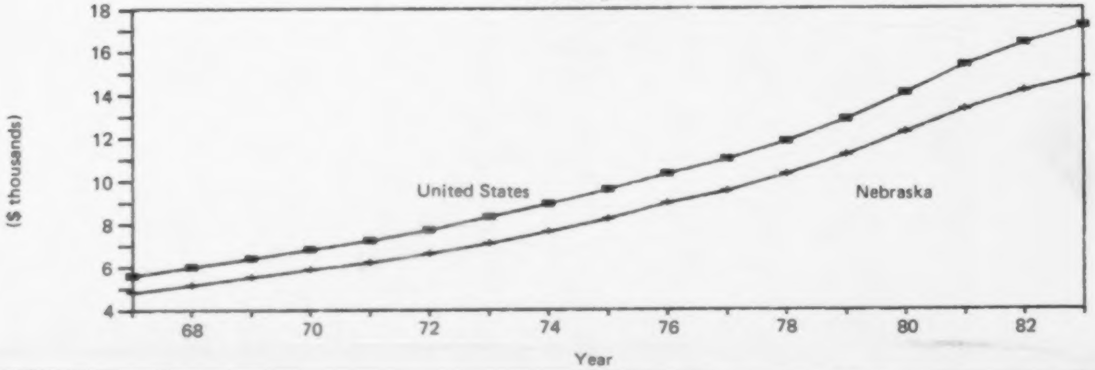
[1] See the March 1984 *Business in Nebraska* for a detailed comparison of Nebraska's employment by industry with the Plains states.

[2] The formula for computing average Nebraska earnings assuming the United States industry employment distribution is:

$$\text{Average Earnings} = \frac{\sum_{i=1}^{65} EMP_{us,i} \times EARN_{neb,i}}{\sum_{i=1}^{65} EMP_{us,i}}$$

where $EMP_{us,i}$ is United States employment in the i^{th} industry and $EARN_{neb,i}$ is average Nebraska earnings in the i^{th} industry.

Graph 1
Average Annual Earnings–U.S. and Nebraska
(excluding Farm)



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BUSINESS IN NEBRASKA

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THE FARM CREDIT SYSTEM: A LOOK TO THE FUTURE

Many leaders in the Farm Credit System believe the next decade will be a period of transition. This viewpoint is shared by farmer directors, cooperative leaders, bank officers, government watch dogs, and external experts. This somewhat surprising consensus has motivated an extensive process for designing and implementing thoughtful change. The process was conceived to consider effectively the diversity within the Farm Credit System as well as the outside influences on the System. This process is called Project 1995.

The Farm Credit System is not an easy unit to describe or understand. The System provides farmers, cooperatives, and other borrowers $80 billion in loans. While the U.S. Government has an important role in the System, it provides none of the funds. All of the funds come from financial markets in this country. The Farm Credit System and its environment can be portrayed as a giant feed mill. Human resources and funds are the primary ingredients that flow into this mill. The government role is a screening process which sets the rules for acquisition and lending of funds. In addition, government affects many other things such as the nature of growth trends in the ag economy. Business technology affects the pattern of business and the nature of markets facing farmers and cooperatives.

Project 1995 takes a detailed look at these components of the Farm Credit System. Project 1995 attempts to assess conditions in 1995. This article highlights the findings of Project 1995.

PRODUCTION AGRICULTURE AND RURAL AMERICA IN 1995

*A dual agriculture is emerging in which relatively few large farms account for most farm output and income. Those farmers who are trying to make their living from farms that are not economically viable will continue to experience problems.

*On the whole, U.S. agriculture must plan for a difficult future. However, there will be profit opportunities for innovative and progressive operators. Farmers must learn to manage risk for their personal profit.

*The farm sector will be increasingly influenced by domestic and international economic policies--including monetary policy, fiscal policy, and foreign trade policy. The domestic economy will experience steady but modest growth through 1995. Growth in real gross national product will average about 3.2 percent annually, supported by increases in the labor force and in productivity. Interest rates are expected to rise early in the forecast period because of a clash between public and private credit demands. Rates will decline after the mid 1980s as a result of easing monetary policy and lower federal deficits. Some weakness of the dollar is likely in the near future, which will bolster ag exports.

*The strong growth in ag exports of the 1970s will not be repeated, although foreign sales are expected to grow over the period. Thus, U.S. agriculture will be characterized by high stock levels and acreage controls. Potential domestic surpluses and serious debt and foreign exchange problems will keep U.S. farm income relatively low for the next several years.

*Resources will determine the level of ag production and its location. Key issues will be availability and quality of water, soil erosion, transportation deregulation, farm labor benefits, and the use of computers and professional services to enhance farm management.

*Major technological breakthroughs are not expected by 1995.

*The total number of farms will decline about 1 percent per year through 1995. The number of large farms will grow at an increasing rate, while the number of small farms will decrease at a dropping rate.

*Realized net income in 1967 dollars will be $8 to $9 billion per year, up from the $7.5 billion of the 1981-83 period, but below the levels of the 1970s.

*Production of soybeans, corn, wheat and cotton will increase significantly, mostly from improved yields.

*Major regional shifts are not likely to occur in crop production. Water availability and double-cropping will be catalysts in areas where production shifts do occur.

*Per capita consumption of beef, veal, lamb, and pork will remain at 1982 levels. Milk consumption will decline per person. Red meat exports will not change appreciably; broiler meat exports will increase significantly.

*After 1985, cattle numbers will begin to fall. Stocker programs will grow, while feeder programs will decline. After 1990, cow numbers and feedlots will hold steady; feedlots will continue to be more centralized and concentrated in the Great Plains.

*The capital requirements in agriculture will grow more slowly in the years ahead. Total assets are projected to increase about 6.5 percent annually. Non real estate assets will grow more rapidly than real estate assets. Larger farms will gain in importance. Regional differences in asset growth will also be apparent.

*Leverage for some farmers will increase as will the pressure on liquidity and incomes. Many farms will be subject to increasing financial stress. Total debt is projected to reach $465 billion by 1995, representing annual growth of 7.5 percent. Propietors' equity is expected to grow about 6.5 percent per year.

(continued on page 2)

This article is excerpted from the Project 1995 report of the Farm Credit System.

(continued from page 1)

*The competitive environment for delivering credit and capital to farmers will change markedly. The principal suppliers will remain the same, but market shares will shift in favor of lenders who can effectively segment the market, provide tailored debt packages including equity and lease capital, manage delivery costs, and use computer and communication technology. Deregulation will increase the competitive effectiveness of lenders.

*Finance and marketing skills will become more critical to future farming operations. Computer and communication technology wil facilitate this trend.

*The economies of rural America are becoming more diversified. Stabilization of ag employment and growth in manufacturing and services have stimulated non-farm income. The viability of small part time farms will depend on the availability of off-farm employment opportunities. Most of these opportunities will center around large towns. The small town or village will continue to have problems developing an economic base.

*The demand for services in rural areas will continue to multiply. If federal and state assistance to these areas diminishes as expected, the ability to generate capital will become very important. Some communities will rely increasingly on user fees and local taxes to fund operations.

THE NATURE AND ROLE OF COOPERATIVES AND AGRIBUSINESS IN 1995

*Agricultural producers will invest in cooperatives only with good service and definite economic benefit.

*Acquisition of sufficient equity capital is a significant challenge facing cooperatives.

*Local coops will decline in number. Super locals will become larger. Smaller locals will continue to serve small specialized industries.

*Regional cooperatives will decline in number, although some may become larger as restructuring continues to reduce duplication of services, products, and facilities.

*The cooperative system must give maximum economic returns to participating members.

*The trend toward consolidations, mergers, and restructuring indicates a need for larger equity investments by individual producer members and in total.

*Cooperatives want lower financial leverage because of fluctuations in inflation and real interest rates, but few have demonstrated a plan to achieve this.

*Cooperatives must decide their role in grain marketing. A unified structure would strengthen their position.

*Cooperatives and Farm Credit Banks need to deal with the inflation volatility and income and price variability.

*In 1995 farmer board members will be younger, more formally educated, and more market oriented. Boards may include outside members chosen for their business acumen.

*New market potential for Farm Credit exists mainly in providing a full range of new services, such as leasing, depository capabilities, cash management, et cetera. International financial services will be an opportunity to facilitate marketing of U.S. ag products. Information services about finance, markets, and industry will also be a major opportunity.

*A significant opportunity exists for expanding services and loan volume to rural utilities.

*Fruit and vegetable coops will purchase selected companies and develop joint venture opportunities to obtain national identification. Fresh fruits and vegetables present significant growth opportunities.

*The federal government will likely reduce its annual milk removals by several billion pounds. New technology will reduce handling costs and increase the distance that fluid milk may be hauled.

*Meat packing has undergone structural changes because of economies of size, technological changes, and the breakdown of the nationwide wage scales. Cooperatives are reducing their involvement.

*Rural utilities will continue to develop joint ventures with investor-owned utility companies.

*Grain and oilseed marketing must adapt. Local elevators must merge to compete.

*Marketing orders will survive with removal of powers objectionable to consumer advocates. Marketing orders will be used in new ways, such as facilitating market information and price discovery, and to promote demand.

*The majority of ag exports (low value bulk commodities) are expected to expand during the next decade at about one-half the rate of the 1970s. Firms operating in industries with excess capacity cannot expect quick relief through export expansion.

*Interest is strong in high value products (HVP) such as meats, beverages, fruits, vegetables, flour, and animal feeds. The U.S. share of HVP world exports is only 10 percent and is projected to remain at that level through the 1990s unless special marketing efforts are made.

*There is an urgent need for a long term comprehensive ag policy.

*Expanding demands are projected for oilseeds, grain, fresh fruits and vegetables, cheeses, livestock feed, seed, and rural utilities. Relatively static demands are projected for cotton, fluid milk, red meat, fertilizer, and petroleum. The demand for canned fruits and vegetables will likely decline.

*Transportation costs will continue to rise. An adequate transportation infrastructure (highways, ports, railroads, locks, and dams) is vital to contain long run transportation costs.

FINANCIAL MARKETS AND INSTITUTIONS IN 1995

*The private savings rate in the U.S. will likely remain low compared with other industrialized countries and will be inadequate to fund the needs of both private and public sectors. This will make economic recoveries more difficult to sustain.

*The federal deficit is projected to average about 5 percent of GNP for the next several years. A growing part of the federal deficit will be due to transfer payments which do not add to economic growth.

*Several financial groups will become more important sources of capital for the U.S. economy: domestic non-bank financial institutions, public and private pension funds, and foreign institutions. Commercial banks and other depository organizations will continue to be important sources of capital, but will account for a smaller percentage of total invested funds.

*Foreign loan problems will induce many banks to concentrate more on domestic loans and loans to relatively safe nations.

*Many changes in financial instruments and techniques will be refinements of debit/credit cards, pass through securities, par-

(continued on page 3)

(continued from page 2)

ticipation certificates, indexed securities, and equity participation financing.

*The differential between the return on funds and their cost will narrow for financial institutions in the next decade.

*Political pressure to return government agency functions to the private sector will continue.

*Pressures will grow on sponsored agencies to restrict their lending.

GOVERNMENT POLICY TOWARD AGRICULTURE AND FINANCE IN 1995

*There will be substantial declines in price support and in income enhancement programs for agriculture. Non-farm social programs will benefit the part time and middle group of farmers. Supply, price, and income stabilization will be the primary objectives of government policy. The government will play a role in other areas such as soil and water conservation, food quality and safety, and credit programs for agriculture.

*Supply and demand balance of agricultural production will be more difficult to achieve, despite its importance as a government policy.

*It is unlikely that the government can establish an effective long term ag trade policy due to diverse foreign and domestic interests.

*The trend toward a few large farms and many part time farms will continue.

*The trend toward involvement of diverse nontraditional ag groups and institutions in agricultural policy will continue. Traditional farm groups will find it increasingly difficult to control the ag policy agenda.

*Public support for the Farm Credit System will erode if the System serves only the large scale commercial farmer.

*The trend toward financial deregulation will continue at a moderate pace. The current financial regulatory structure will not change drastically.

*Congress will expect federally chartered financial institutions, especially the Farm Credit System, to demonstrate how they serve a public purpose.

*Government credit programs for special groups will remain. There will be substantial pressure from Congress or the Executive Branch to increase the tax burden on all financial institutions.

BUSINESS TECHNOLOGY IN FINANCE AND AGRICULTURE IN 1995

*Business technology will significantly change the work environment and will require different job skills.

*Deregulation and business technology will create a highly competitive, restructured financial services industry.

*Business and communication technology will permit widespread use of electronic payments systems.

*Business technology will drive the continued concentration, consolidation, and vertical integration of the ag community.

*Agriculture will be in the forefront in production technology, but behind other industries in business management technology.

HUMAN RESOURCE TRENDS THROUGH 1995

*Employees are less likely to be motivated by security and by purely monetary rewards (although compensation remains an important factor in the work equation) than by interesting jobs, individual participation, and risk taking and control.

*Unions are becoming increasingly aggressive in their efforts to organize white collar workers. White collar employes are more susceptible to union organizing efforts because of changes in values, demographics, and the economy. Financial institutions are becoming a target of unionization efforts; unions have been successful in 38 of their last 64 attempts to gain representation within these organizations.

*Technology will change the work environment from a labor intensive office configuration to an environment in which work can be performed in the home or in satellite offices. Technology can create greater flexibility in the location, scheduling and pace of work. Management will be challenged to make sure technology enhances the workplace without threatening the workers.

*The baby boom of the late 1940s currently provides employers with an ample manpower supply. It is a buyer's market. The low birth rates of the 1960s and 1970s will reverse this trend. Employers will face a seller's market.

*The slowing growth of the System and the short term surplus of professional employees will provide excess candidates for few promotional opportunities. Alternatives to traditional promotional routes will have to be developed.

*Currently the Farm Credit System appears advantageously positioned to conduct business as usual. Diversification in business activities could force recruitment of employees from nontraditional sources.

*In the longer term, the System will face a shortage of qualified candidates for professional positions as the rate of growth of the work force slows and increasing numbers of people pursue vocational training. A decline in applicants with farm backgrounds and agricultural related degrees may force the System to diversify its professional employment practices.

*Reward systems are changing in the financial industry. The need for diversified management talent, tax legislation, and changes in employee value systems have necessitated greater use of incentive pay, stock ownership by employees, and cafeteria benefit programs.

*The organizational structure of American business is changing radically. Employee participation is increasing, as are productivity and production quality. Jobs are designed to encourage employee innovation and risk taking. Small task force units, each with economic and managerial control over its own future, are evolving. The parent company focuses primarily on results.

EMERGING THEMES

There are many pieces in the puzzle. We do not yet understand how they all fit together. But some connections and reinforcing relationships seem clear. These emerging themes help to identify places where the old patterns are under the greatest pressure and most likely to break down.

Privatization-Agriculture will move away from government control toward a more independent existence. Clearly this process goes beyond agriculture (airlines, trucks, et cetera). Agriculture may be a special case due to the abundance of food, the tiny number of farm votes, the large size and apparent success of most significant food producers, and the divided posture of ag politics. The support received by many ag institutions such as USDA, land grant universities, the Forest Service, and others is declining, while private agencies are becoming more important in analysis,

(continued on page 6)

Review and Outlook

The Nebraska economy continues to generate jobs. In January 1985, the most recent month for which statistics are available, there were 30,000 more jobs in Nebraska than in January 1984 according to data released by the Nebraska Department of Labor. More importantly, job gains were evenly distributed across the state. Omaha added more than 15,000 jobs, while Lincoln gained 6,000 jobs, and 8,000 jobs were added outside the two metropolitan areas. *Employment data are subject to revision, but it seems safe to conclude from the employment data that the economy of Nebraska continues to expand.*

According to the Nebraska Department of Labor, total employment in January 1985 was 747,774. This amounts to a 4.2 percent increase for the state. The percentage gain in Omaha employment was 5.8 percent, while the growth in Lincoln was 6.0 percent. The area outside Lincoln and Omaha recorded a 2.5 percent rise in employment over the same period.

Employment growth is visible in all nonagriculture sectors. Manufacturing had nearly 2,000 more employees in January 1985 than in January 1984. Construction had 3,000 additional workers and the services sector employed 26,000 more persons in January 1985. Gains in manufacturing employment were not limited to Omaha and Lincoln, as the outstate area recorded a 4.1 percent increase. Construction employment was up in all three geographic segments of the state--Omaha, Lincoln, and the nonmetropolitan area. Services recorded a similar pattern of increase in employment with gains in the three regions.

The Nebraska expansion in employment is larger than U.S. employment growth according to figures compiled by the Nebraska Department of Labor. Nebraska employment is up 4.2 percent, compared with 3.0 percent nationwide (Table A). Manufacturing employment has increased 3.3 percent in the state, and 3.0 percent nationally. Construction and service employment have also gained more rapidly in Nebraska than U.S. employment in those sectors.

Table A
Employment by Sector
Nebraska and United States
January 1984 and January 1985

	State	Omaha	Lincoln	Balance of state	U.S.
Total Employment					
January 1985	747,774	286,063	108,207	353,504	104,344,000
January 1984	717,443	270,306	102,108	345,029	101,270,000
% Change	4.2	5.8	6.0	2.5	3.0
Manufacturing Employment					
January 1985	88,600	35,781	12,655	40,164	19,603,000
January 1984	85,767	35,436	11,761	38,570	19,030,000
% Change	3.3	1.0	7.6	4.1	3.0
Construction Employment					
January 1985	20,535	9,649	3,383	7,503	4,115,000
January 1984	17,260	7,705	2,559	6,996	3,779,000
% Change	19.0	25.2	32.2	7.3	8.9
Service Employment					
January 1985	638,639	240,633	92,169	305,837	80,626,000
January 1984	612,441	227,165	87,788	297,488	78,461,000
% Change	4.3	6.0	5.0	2.8	2.8

Source: Nebraska Department of Labor

Table B
Nebraska Personal Income
1981 to 1984 by Quarter
($ millions)

Year & Quarter	Nonfarm Nebraska Personal Income	% Change	Nebraska Personal Income	% Change
1981.4	15,658		17,020	
1982.1	16,014		17,297	
1982.2	16,263		17,159	
1982.3	16,486		17,091	
1982.4	16,717	6.8	17,655	3.7
1983.1	16,836	5.1	17,104	-1.1
1983.2	17,149	5.5	17,419	1.5
1983.3	17,512	6.2	18,200	6.5
1983.4	17,571	5.1	18,913	7.1
1984.1	17,928	6.5	20,065	17.3
1984.2	18,387	7.2	19,518	12.1
1984.3	18,824	7.5	19,891	9.3

Percentage changes are measured from one year previous

Nebraska's personal income was estimated at $19.9 billion in the third quarter of 1984. This represents a solid gain of 9.2 percent above the third quarter of 1983. The rate of increase peaked in the first quarter of 1984, however, when it was 17.0 percent above year previous levels (Table B). This may be a matter of concern as the rate of change in personal income seems to persist over five or six quarters--when a peak is reached and the rate of change drops, the trend usually extends for five to six quarters before a bottom is reached and the rate of change rises.

This pattern of four to six quarters of increasing rates of change in personal income followed by four to six quarters of declining rates of change in personal income may not persist this time because first quarter 1984 personal income statistics were distorted by an accounting procedure. The U.S. Department of Agriculture suggested that all payment-in-kind income be placed in the first quarter of 1984. This was an arbitrary accounting decision which may or may not reflect actual payment.

Nonfarm personal income--personal income with farm income removed--was $18.8 billion in the third quarter of 1984, 7.5 percent above one year previous. The rate of increase for nonfarm personal income is growing, suggesting the nonfarm Nebraska economy will continue to expand.

DONALD E. PURSELL

TABLE 1—CITY BUSINESS INDICATORS

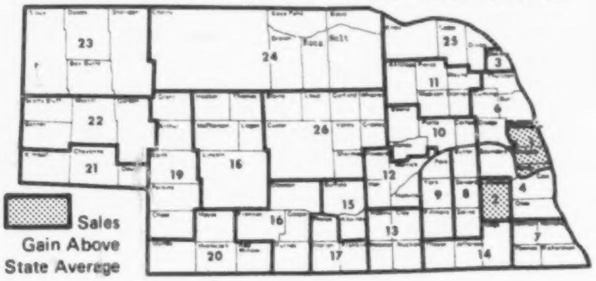
December 1984	Employment*		Building Activity@		Net Taxable Retail Sales of Nebraska Regions and Cities†				
					City Sales		Region Sales		
Region Number and City	Number of Persons Employed	Percent of One Year Previous	Total Value of Building Permits Issued ($ thousand)	Percent of One Year Previous	Monthly Sales ($ thousand)	Percent of One Year Previous	Monthly Sales ($ thousand)	Percent of One Year Previous	Year to Date as percent of Previous Year to Date
The State	759,450	103.4	55,178.3	109.9	831,360	102.4	904,872	103.3	108.1
1 Omaha	196,417	101.9	16,409.9	130.2	281,914	104.5	341,997	105.7	114.2
Bellevue	44,542	106.6	840.4	80.7	16,392	120.9			
Blair	NA	105.1	40.1	125.3	3,682	95.9			
2 Lincoln	110,964	107.4	8,063.7	89.5	107,695	105.0	118,322	105.8	111.5
3 South Sioux City	7,364	103.2	123.0	106.1	3,575	103.4	5,100	98.7	105.2
4 Nebraska City	6,687	105.0	45.9	293.0	4,009	95.6	14,577	92.7	99.3
6 Fremont	17,592	103.6	989.8	133.3	15,150	93.9	26,966	93.1	99.1
West Point	5,592	103.0	NA	NA	2,416	82.7			
7 Falls City	4,126	103.1	11.2	159.0	2,734	94.9	9,415	101.5	97.4
8 Seward	6,577	108.3	175.0	117.9	3,221	92.9	11,716	90.0	99.8
9 York	8,128	107.1	234.7	117.0	5,914	96.3	12,029	91.7	100.6
10 Columbus	15,702	103.6	219.5	110.8	13,294	97.7	22,505	95.6	101.8
11 Norfolk	16,907	106.6	1,371.9	77.5	17,158	102.5	29,821	97.1	99.3
Wayne	4,531	110.8	1.3	68.1	2,752	81.8			
12 Grand Island	23,884	106.0	520.3	175.6	32,6[illegible]4	101.6	42,803	101.3	103.5
13 Hastings	15,061	106.0	74.2	300.2	14,975	93.7	23,480	93.3	101.7
14 Beatrice	10,264	103.0	28.5	57.9	7,454	95.4	16,235	95.7	95.4
Fairbury	4,466	99.4	75.0	121.5	3,108	97.0			
15 Kearney	20,251	111.1	1,210.4	101.4	17,148	109.4	22,645	104.8	104.3
16 Lexington	10,671	106.3	184.2	119.3	5,116	84.6	13,447	86.6	95.7
17 Holdrege	4,247	101.2	78.0	42.7	4,611	88.2	7,642	89.3	96.7
18 North Platte	15,166	102.5	152.5	157.1	15,088	89.7	17,872	89.3	98.9
19 Ogallala	4,647	98.3	NA	NA	4,831	114.8	9,784	109.9	102.0
20 McCook	5,001	109.6	357.2	360.7	7,965	103.5	10,997	103.9	100.8
21 Sidney	4,510	107.2	2.7	34.4	4,164	93.4	8,840	101.1	103.3
Kimball	2,720	105.0	NA	NA	2,447	98.7			
22 Scottsbluff/Gering	17,134	98.6	71.6	29.2	17,719	100.6	23,850	100.2	100.4
23 Alliance	7,132	102.8	107.9	83.0	6,253	98.3	14,419	97.5	99.3
Chadron	4,339	112.0	4.3	32.2	3,093	99.4			
24 O'Neill	5,114	101.6	NA	NA	3,999	95.9	11,973	92.2	94.9
25 Hartington	4,552	102.8	NA	NA	1,531	91.7	7,197	93.2	91.8
26 Broken Bow	5,363	98.9	49.9	399.2	3,370	90.4	10,532	92.0	93.4

* As a proxy for city employment, total employment for the county in which a city is located is used

@ Percent of year previous is based on a nine month spreading factor to reflect the construction process. Price is adjusted with the construction cost index. State total is the sum of cities listed. Broken Bow building permit values are spread over an estimated period of construction

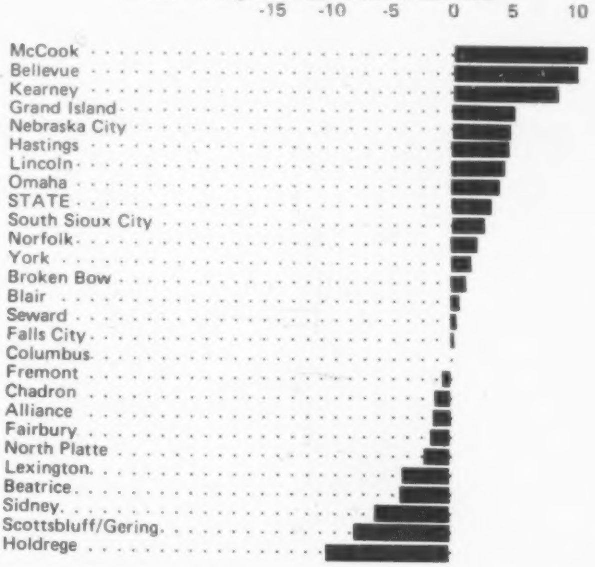
† State totals include sales not allocated to cities or regions. The year-to-year ratios may be misleading because of changes in the portion of unallocated sales. Region totals include, and city totals exclude, motor vehicle sales. Sales data were obtained from the Nebraska Department of Revenue

YEAR TO DATE AS PERCENT OF PREVIOUS YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



CITY BUSINESS INDEX

Percent Change from Same Month Last Year



Source: Table 1 above

TABLE 2—PRICE INDEXES

December 1984	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	315.5	104.0	104.2
Commodity Component	282.8	102.6	103.4
Wholesale Prices	309.9	101.2	102.4
Agricultural Prices			
United States	253.0	96.6	105.6
Nebraska	256.0	97.7	102.9

* Using arithmetic average of monthly indexes

Source: U. S. Bureau of Labor Statistics, U.S. Department of Agriculture

(continued from page 3)

forecasting, et cetera. All indications point toward a continuation of this pattern.

Market Orientation/Entrepreneurship-Society has spent billions protecting the farm and finance industries from the forces of the economy. Society is no longer willing to pay that price. A more active, less passive agriculture sector must emerge. Agriculture must become more aggressive, more market oriented, and more entrepreneurial.

Changing Corporate Culture-The System's source of employees will become less agriculturally and more business oriented.

Segmentation of Agriculture-In the past, most government farm programs related to all producers. The same was true for cooperatives and other agribusiness. In the future, the commercial farmers and the part time small farmers will diverge. Farm interests will be divided. Small farmers are numerous and more powerful politically, yet their concerns often run counter to those of the large commercial farmer. The government becomes increasingly insensitive, even hostile, to commercial agriculture. Coops are forced to treat some members differently than others. This conflict of small and large farmer threatens to destroy the harmony essential for coping with a risky future.

Supermarketization-The American supermarket was the first distribution agency to embrace a broad spectrum of products from many different manufacturers. This concept seems likely to emerge in the transition period in financial and related services; insurance, tax management, marketing information, leasing, loans, estate planning, investments, cash flow management, and other services may become part of a new high tech financial distribution channel. The Farm Credit System cannot afford to get in the position of the vanishing independent meat market--the supermarket has made the meat market a thing of the past.

Globalization-The markets for ag commodities, finished goods, and loanable funds are affected by world events. As the role of government declines, these events carry even greater impact. As agriculture becomes more dependent on export markets, prices and farm income will unavoidably vary more year-to-year. Increased risk will make financing agriculture and cooperatives more difficult.

Growing Pace of Change-Market change is much less sluggish than government change. Growing business technology moves information quickly--both inside the firm and around the world. This leads to shorter market response patterns. Change will be inevitable and will increase in velocity.

Rural America-Part time farmers depend on the local economy for income. Even families operating megafarms are less self-sufficient than farmers of the past. American agriculture depends on the viability of the rural economy. The individual farmer depends just as much on the local economy as agriculture depends on the world economy.

Traditional sources of funds for the rural economy are changing in structure and commitment to the local community. Commercial banks are dwindling in number. The banks that remain are developing stronger affiliations with major urban financial centers and mainstream investment opportunities. The Farm Credit System may need to support a broader range of economic activity to counter the influence of this trend on farm families.

Project 1995 was sponsored by the Farm Credit System, a business organization that provides more than one-third of the financial needs of America's agricultural producers and cooperatives. The Farm Credit System is composed of Federal Land Banks, Federal Lank Bank Associations, Federal Intermediate Credit Banks, Production Credit Associations, and Banks for Cooperatives.

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GROSS FARM PRODUCT: NEBRASKA AND THE PLAINS STATES

Without doubt, agriculture is an important industry to the economy of the plains region comprising the states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Consequently, a measure of agriculture's contribution to total gross regional product is interesting and valuable to individuals and businesses involved either directly or indirectly with agriculture.

This article presents a detailed analysis of gross farm product for states of the plains region. Dollar values of components required to calculate gross farm product are outlined for each state in the region. Techniques used to calculate gross farm product are presented in balance sheet form. Individual state contributions to U.S. and regional gross farm product are presented.

Nebraska agriculture's contribution to total gross state product is discussed and illustrated. Historical data for gross farm and nonfarm product are presented in both tabular and graphic formats.

Although the primary objective of this article is to analyze gross farm product, it is important that economic relationships between the farm and nonfarm sectors be recognized.

GROSS STATE PRODUCT

Gross state product, defined as the dollar value of all goods and services produced by a state's economy in one year, is the regional analog of gross national product. Like its national counterpart, gross state product is used to monitor economic growth and change. Since nothing exists at the state level comparable to the national income and products accounts, gross product originating for nonfarm industries is estimated indirectly by applying ratio allocation techniques to national statistics.[1] Unlike nonfarm output, gross farm product can be directly calculated using state farm income statistics published annually by the U.S. Department of Agriculture. Delays in receiving state data, however, result in a one-year lag in reporting gross farm product.

Table 1 displays components and steps required to calculate current dollar (nominal) and constant dollar (real) Nebraska gross farm product. Gross farm product is the difference between total farm output and intermediate production expenses. Farm output excludes government payments and rent to non-operator landlords; intermediate production expenses exclude hired labor expenses. Net farm income is another measure that is frequently associated with farm output. Gross farm product and net farm income should not be equated, however, as they are different measures.

Real gross farm product is expressed in 1972 dollars, and reflects changes over time in prices received for farm products and production costs. Real gross product is used more often than its nominal counterpart to monitor economic growth of an industrial sector, farm or nonfarm. The state index of prices received for all farm products is used to deflate farm output, and the U.S. index of prices paid by farmers for production expenses is used to adjust intermediate production expenses. These components are combined as indicated in Table 1 to obtain real gross farm product. An overall deflator for the farm sector can be obtained by dividing nominal gross farm product by real gross farm product.

PLAINS STATES GROSS FARM PRODUCT

The plains region includes the states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota, and is often referred to as "America's heartland." The region houses a sizeable livestock operation and produces a significant proportion of U.S. food and feed grains.

(continued on page 2)

Table 1
1983 Nebraska Gross Farm Product

	millions of current dollars
Gross farm income	7,141.2
Plus net change in farm inventories	-336.3
Less government payments	762.3
Less rent paid to non-operator landlords	212.5
Equals total farm output (1)	5,830.1
Current operating expenses	4,619.6
Less hired labor expenses	244.7
Equals intermediate production expenses (2)	4,374.9
Gross farm product (1) minus (2)	1,455.2
	millions of constant dollars
Total farm output	3,052.4
Less intermediate production expenses	1,743.0
Equals gross farm product	1,309.4

Source: *Economic Indicators of the Farm Sector, State Income and Balance Sheet Statistics, 1983*, U.S. Department of Agriculture publication and Bureau of Business Research calculations

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[1] J.W. Kendrick and C.L. Jaycox, "The Concept and Estimation of Gross State Product," *Southern Economic Journal*, 32 (1965), 153-168.

Table 2
Derivation of 1983 Gross Farm Product for the Plains States
Millions of Current Dollars

	Iowa	Kansas	Minnesota	Missouri	Nebraska	North Dakota	South Dakota	Total
Gross Farm Income	11,093.5	6,439.1	7,492.6	4,784.2	7,141.2	3,501.5	3,061.4	43,513.5
(minus)								
Government Payments	899.5	598.2	610.9	236.9	762.3	578.8	267.1	3,953.7
(plus)								
Net Change in Farm Inventories	-2,091.8	-61.2	-640.3	-726.3	-336.3	-206.8	-42.5	-4,105.2
(minus)								
Current Operating Expenses	5,920.0	4,124.7	3,863.4	2,615.3	4,619.6	1,490.2	1,667.7	24,300.9
(plus)								
Hired Labor Expenses	276.3	259.9	317.5	172.7	244.7	126.1	104.6	1,501.8
(minus)								
Rent to Non-operator Landlords	453.6	166.8	224.6	133.9	212.5	216.9	117.9	1,526.2
(equals)								
GROSS FARM PRODUCT	2,004.9	1,748.1	2,470.9	1,244.5	1,455.2	1,134.9	1,070.8	11,129.3

Source: see Table 1

(continued from page 1)

From 1980 through 1983, the plains region accounted for approximately one-fifth of total U.S. gross farm product. Averaged over the period, contributions to U.S. gross farm product by state ranged from 1.6 percent for South Dakota to 5.0 percent for Iowa.

Calculation of 1983 gross farm product for the plains region is presented in Table 2, where the balance sheet indicates the relationships of components in the calculation. The method of calculation in Table 2 is different than the method of Table 1, as it circumvents calculating total farm output and intermediate production expenses separately. Nominal gross farm product is identical, however, regardless of which method is used. In 1983 gross farm product for the plains region was $11.1 billion, or 18 percent of U.S. gross farm product. A severe drought and the large magnitude of government payments contributed to a significant decline in 1983 gross farm product.

Government payments to plains states farmers were unusually high in 1983 due to the now defunct payment-in-kind (PIK) program. Government payments to all states totaled $9.29 billion in 1983. The $3.95 billion in government payments to plains states farmers accounted for 43 percent of total government payments in 1983. Iowa received almost $900 million in farm subsidies and other government payments; Nebraska followed with $762 million, a figure 175 percent greater than the previous high of $278 million reported in 1982.

Government payments to Nebraska farmers are disaggregated below to show the different programs that received funding.

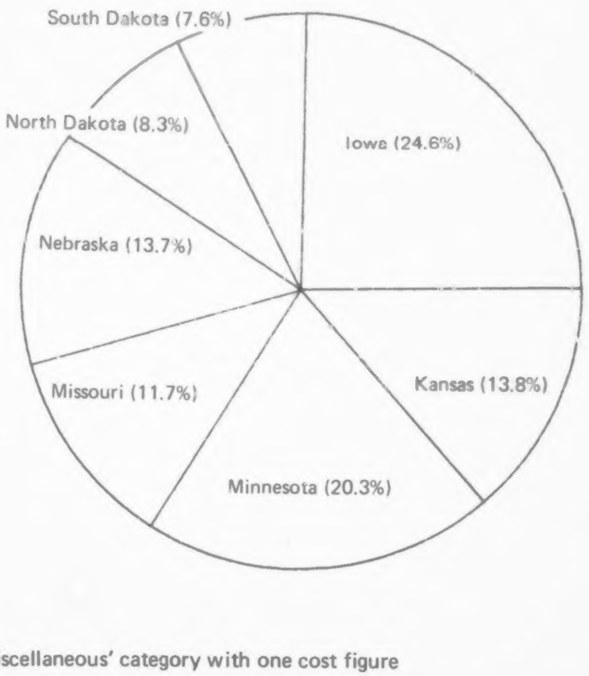
Feed grain and wheat programs	$220.1 million
Conservation and wool act programs	$7.1 million
Milk indemnity, PIK, rural clean water, clean lakes, forest incentive, water bank, emergency livestock fee, and extended storage programs[2]	$535.1 million
TOTAL	$762.3 million

Government payments are considered by many as incentives and safeguards for agriculture, and would be reduced or eliminated under the proposed farm program.

Gross farm product for the plains region is presented in Table 3 for the period 1980-1983. Averaged over the four-year period to smooth fluctuations that occur on a year-to-year basis, the percentage composition by state of regional gross farm product is illustrated in Figure 1.

(continued on page 3)

FIGURE 1
Percentage Comparison of Plain States Gross Farm Product
1980-1983 average



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[2] The U.S. Department of Agriculture lumped these programs under the 'miscellaneous' category with one cost figure

Table 3
Plains States Gross Farm Product 1980-1983
Millions of Current Dollars

	1980	1981	1982	1983
Iowa	3,655.5	5,140.5	3,861.9	2,004.9
Kansas	1,874.6	2,185.3	2,384.5	1,748.1
Minnesota	3,013.4	3,542.4	3,093.1	2,470.9
Missouri	1,589.6	2,258.1	1,863.4	1,244.5
Nebraska	1,633.3	2,835.6	2,249.4	1,455.2
North Dakota	955.5	1,629.3	1,228.9	1,134.9
South Dakota	986.4	1,269.8	1,189.7	1,070.8
Plains States	13,708.3	18,861.0	15,870.9	11,129.3
Percent of U.S. Gross Farm Product	20.2	23.3	21.1	18.1

Source: see Table 1

(continued from page 2)

A significant increase in gross farm product for the plains region was reported in 1981, followed by declines in 1982 and 1983, matching the nationwide trend. Iowa's gross farm product fell 61 percent from 1981 to 1983, while Nebraska and Missouri dropped 49 percent and 45 percent, respectively. The smallest decrease in gross farm product was 16 percent for South Dakota. As a whole, the plains region experienced a 41 percent dip in gross farm product over the same period. The plains region's percentage share of U.S. gross farm product followed the same trend as dollar value, increasing to over 23 percent in 1981 and declining to less than 19 percent in 1983.

The outlook for 1984 and 1985 is for improvement in regional gross farm product. A gain in farm marketings, positive net change in farm inventories, and a decline in government payments should contribute to an increase in gross farm product. The big factor is the trade-off between cash farm marketings and production expenses, which could be unfavorable if commodity prices remain depressed.

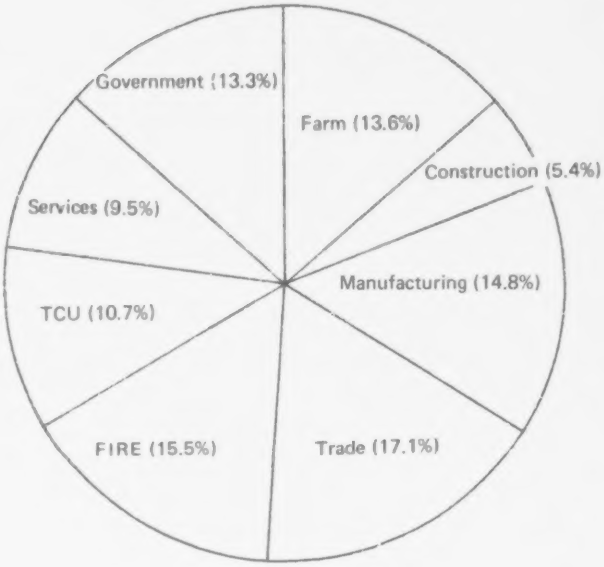
NEBRASKA GROSS FARM PRODUCT

Total gross state product is an aggregate measure of economic activity generated by the various industrial sectors of a state's economy. Gross product originating by sector permits a comparison of contributions to total gross state product. Such comparisons have often been criticized since the methodology for estimating gross product by sector largely ignores the economic interrelationship of the sectors. Industrial sectors of a state economy are not mutually exclusive economically, but the overlaps are difficult, if not impossible, to determine. Recognizing the shortcomings of the accounting system, average percentage composition of real Nebraska gross state product for the years 1960 through 1983 is illustrated in Figure 2. The average percentage share for gross farm product was 13.6 percent, ranging from a low of 9.4 percent in 1974 to a high of 17.0 percent in 1981.

Historical data for Nebraska gross farm and nonfarm product in nominal and real (1972 dollars) terms are presented in Table 4. From 1960 through 1983, compound annual growth rates for real

(continued on page 6)

FIGURE 2
Percentage Composition of Real Gross State Product
1960-1983 average



TCU = Transportation, Communication, and Utilities
FIRE = Finance, Insurance, and Real Estate

Table 4
Gross Farm and Nonfarm Product
Millions of Dollars

	Farm		Nonfarm	
Year	Nominal	Real	Nominal	Real
1960	595.9	886.1	3,097.3	4,630.9
1961	461.1	679.0	3,246.5	4,790.8
1962	570.9	787.3	3,461.9	5,014.7
1963	539.5	821.3	3,599.7	5,137.4
1964	419.4	720.9	3,841.7	5,344.6
1965	603.1	860.4	4,009.0	5,463.4
1966	744.1	907.4	4,301.3	5,664.9
1967	702.7	994.6	4,629.2	5,857.3
1968	603.0	869.2	5,043.6	6,115.5
1969	824.0	997.5	5,532.9	6,381.0
1970	767.3	970.4	5,957.0	6,496.9
1971	988.0	1,206.8	6,433.3	6,687.6
1972	1,103.4	1,103.4	7,068.6	7,068.6
1973	1,789.8	962.8	7,874.6	7,541.5
1974	1,404.2	764.6	8,692.1	7,675.0
1975	1,825.7	1,190.3	9,643.3	7,794.9
1976	1,392.2	1,166.0	10,841.0	8,277.1
1977	1,431.5	1,456.2	11,954.7	8,567.9
1978	1,658.0	1,269.6	13,420.2	8,995.6
1979	2,102.1	1,263.8	14,880.0	9,323.1
1980	1,633.3	1,146.9	16,063.3	9,219.4
1981	2,835.6	1,864.0	17,535.1	9,264.0
1982	2,249.4	1,738.2	18,296.1	9,041.1
1983	1,455.2	1,309.4	19,646.1	9,210.2

Source: Bureau of Business Research calculations

Review and Outlook

Data problems abbreviate this month's Review and Outlook. Information from the United States Department of Agriculture on Nebraska cash receipts was not available and may not be available for several months. Retail sales data from the Nebraska Department of Revenue were not properly allocated and are not available for January 1985.

Nebraska's nonagriculture sector was up 3.2 percent compared with one year previous. On a month-to-month basis, the Bureau of Business Research's net physical volume index rose slightly more than 2.0 percent. Construction, manufacturing, and distributive trade recorded increases on a month-to-month basis.

The construction index stood at 104.2 compared with one year previous. Most construction activity is centered in Lincoln and Omaha, although there are exceptions outside the two metropolitan areas.

The net physical volume index for manufacturing grew in January 1985. Although the index has increased since the recession, employment in Nebraska's manufacturing sector remains about 10,000 below the peak of 100,000 established in 1979-1980. The manufacturing sector has improved since the economic upswing in 1983, but it is still well below peak levels in terms of total employment.

Nebraska's distributive trade sector, a large sector that includes wholesale and retail trade, finance, insurance, and real estate, banking, and services, recorded a small gain in January 1985 compared with the previous month. This sector continues to expand slowly. The service sector of the nation and of Nebraska continues to be an important force behind economic expansion--the economic base is broadening because of the growth of services exports. The export of computer programs or services is as important as that of agriculture commodities or manufactured goods.

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes

ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

January 1985	Current Month as Percent of Same Month Previous Year		1985 to Date as Percent of 1984 to Date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	106.9	106.5	106.9	106.5
Construction	104.2	115.7	104.2	115.7
Manufacturing	105.3	104.6	105.3	104.6
Distributive	105.9	106.5	105.9	106.5
Government	114.8	106.4	114.8	106.4
Physical Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	103.2	103.0	103.2	103.0
Construction	100.0	111.1	100.0	111.1
Manufacturing	104.2	103.3	104.2	103.3
Distributive	102.2	102.8	102.2	102.8
Government	105.8	101.1	105.8	101.1

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	373.6	439.4
Construction	269.1	432.6
Manufacturing	375.5	329.3
Distributive	378.4	500.1
Government	411.3	444.7
Physical Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	126.9	146.8
Construction	76.4	122.9
Manufacturing	150.5	129.3
Distributive	119.7	158.2
Government	151.8	149.4

PRICE INDEXES

January 1985	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	316.1	103.6	103.6
Commodity component	282.7	102.1	102.1
Wholesale Prices	309.8	100.6	100.6
Agricultural Prices			
United States	249.0	93.3	93.3
Nebraska	253.0	95.1	95.1

*Using arithmetic average of monthly indexes.

Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

January 1985 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	104.6	113.4	94.8
Alliance	101.7	120.5	88.8*
Beatrice	101.7	66.0	94.2
Bellevue	108.0	74.2	89.1
Blair	104.0	117.2	99.1*
Broken Bow	98.0	568.6	93.5
Chadron	108.5	45.3	90.4
Columbus	102.5	112.8	95.8
Fairbury	98.3	200.7	99.8
Falls City	102.0	163.6	91.7
Fremont	102.7	137.8	108.6*
Grand Island	104.7	153.9	93.4
Hastings	104.7	282.0	89.7
Holdrege	100.2	26.9	84.7
Kearney	115.9	114.3	89.0
Lexington	105.4	124.1	94.2
Lincoln	106.3	100.6	97.1
McCook	108.4	391.6	86.3
Nebraska City	104.0	288.6	82.8
Norfolk	105.4	100.3	101.9
North Platte	101.1	144.6	86.9
Omaha	103.1	129.1	98.0
Scottsbluff/Gering	97.6	30.8	88.7
Seward	107.2	128.6	96.7
Sidney	105.7	36.9	103.0
So. Sioux City	101.5	92.6	99.1
York	105.8	125.4	112.5

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

(continued from page 4)

The outlook for the Nebraska economy is related to the national economy over the next 12 to 18 months. As the national economy expands or contracts, it impacts Nebraska. If the economy grows, the railroads move an additional volume of freight, manufacturers ship additional items, and service firms such as insurance and banking increase their exports.

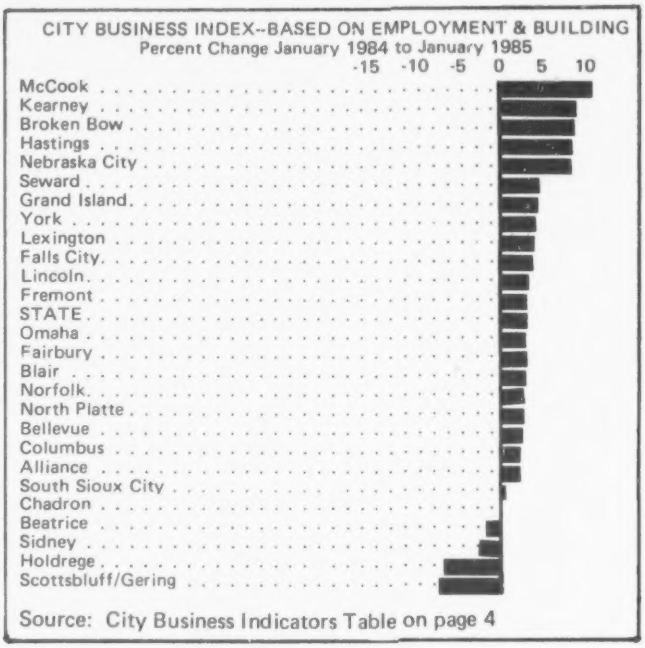
The national economy is expanding slowly at an annual rate of less than 3.0 percent. Continued growth is expected throughout 1986 because the Federal Reserve Board will enlarge the money supply at a sufficient rate to maintain growth. Household and business credit needs are not likely to strain the demand for money, which could lead to falling interest rates if the Federal Reserve continues to permit monetary growth.

Lower interest rates will stimulate economic growth in the state and elsewhere. Lower interest rates will help hard pressed farmers and ranchers and other individuals outside the agriculture sector.

The outlook for inflation is for continued moderate price increases. The annual rate of increase of medical costs has slowed considerably. Lower interest rates will favorably impact financing costs. Inflation should average 3.0 to 5.0 percent over the next 12 months.

The Nebraska economy faces some interesting challenges over the next few years. If the objective is to maximize growth, private and public money should be invested in the nonagriculture sector. The prospects of limited exports of grain mean that grain prices will likely increase less rapidly than all other prices. The demand for beef continues to stagnate--when meat is consumed, it is more likely today to be poultry and fish than five years ago. This will limit gains in livestock prices. The effort to diversify the state's economy can be enhanced by channeling public and private investment into areas which are expanding more rapidly than agriculture where the prospects for a higher rate of return are better than in the farm sector.

DONALD E. PURSELL



CITY BUSINESS INDEX--BASED ON EMPLOYMENT & BUILDING
Percent Change January 1984 to January 1985

Source: City Business Indicators Table on page 4

The University of Nebraska-Lincoln College of Law
And College of Business Administration Present
The Second Annual Midwest Conference on Business:

OUTLOOK '85 CONFERENCE

Former President Gerald R. Ford will deliver the keynote address at the Second Annual Midwest Conference on Business: OUTLOOK '85 in Omaha on May 30.

Other national, regional, and state experts will advise the mid-America business community on economic trends, opportunities, and resources.

Speakers will include John Block, Secretary of Agriculture; Nebraska Governor Bob Kerrey; Dr. Clayton Yeutter, President and Chief Executive Officer of the Chicago Mercantile Exchange; Joel Friedman, Director of Strategic Management at Arthur Anderson and Company; Harold W. Andersen, President of the Omaha World Herald Company; and Dr. Donald E. Pursell, Director of the University of Nebraska-Lincoln Bureau of Business Research.

In addition to the major addresses, workshops on specific economic topics will be conducted.

The conference is presented by the University of Nebraska College of Business Administration and College of Law, and the University of Nebraska-Lincoln Department of Conferences and Institutes. The event is scheduled for Thursday, May 30, 1985 at the Red Lion Inn in Omaha from 9:00 a.m. to 4:30 p.m.. Financial sponsors of the seminar are Arthur Andersen and Company; Mammel, Schropp, Swartzbaugh, Engler and Jones, Inc.; Erickson and Sederstrom, P.C.; and the First National Bank of Omaha.

The advance registration fee is $60 ($75 after May 15) for the full day's program, including lunch.

For information and registration, contact:

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Department of Conferences and Institutes
University of Nebraska-Lincoln
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Lincoln, NE 68583-0929

telephone: 402/472-2844

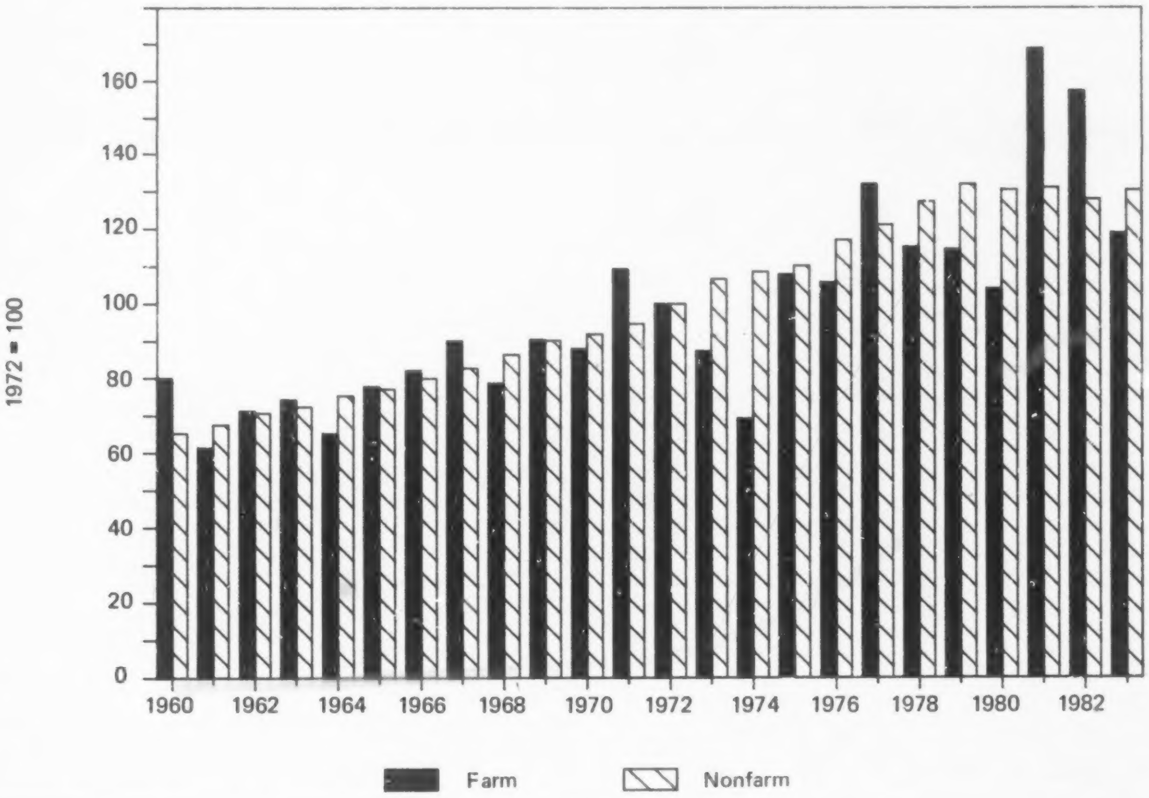
(continued from page 3)

gross farm and nonfarm product were 1.7 percent and 3.0 percent respectively. Gross farm product has exhibited a pattern of wide fluctuations, reflecting the volatility of the farm sector, while the growth of real gross nonfarm product has been relatively stable. The only declines in real gross nonfarm income occurred in 1980 and 1982, corresponding to the last two recessions. During the last year of available data (1983), real gross farm product decreased 24.7 percent, while real gross nonfarm income rose almost 2 percent. Other states in the plains region exhibited comparable growth rates and patterns in gross farm and nonfarm product.

Figure 3 illustrates the growth of real Nebraska gross farm and nonfarm product over the 1960-1983 period. Gross product has been converted to index numbers (1972=100) to better illustrate and compare the growth patterns for the farm and nonfarm components.

CHARLES L. BARE

FIGURE 3
Nebraska Farm and Nonfarm Gross Product
1960-1983



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BUSINESS IN NEBRASKA

June 1985
Vol. 40 No. 489

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NEBRASKA ECONOMIC INDEXES

Analysts use indicators which are published monthly by the U.S. Department of Commerce to monitor current activity and forecast changes in the performance of the economy. The composite indexes of leading, coincident, and lagging economic indicators are the most widely recognized and used. The news media swiftly report and analyze month-to-month changes of the leading index, because of its impact on the projections of economic agents of future changes in business activity.

Many states and metropolitan statistical areas (MSAs) rely on the national leading index as an early warning signal of changes in local business activity. Movements in the local economy do not always, however, parallel those of the national economy. Consequently, many states and MSAs use economic indicators tailored to their locales.

This article provides a nontechnical exposition of economic indicators and presents preliminary results of a project to construct composite economic indicators for Nebraska. Further exploration, testing, and refinement will probably yield indexes that will provide a meaningful and timely assessment of Nebraska business activity.

THE BUSINESS CYCLE AND ECONOMIC INDICATORS

The American economy is subject to recurring fluctuations in the level of economic activity. Upswings and downswings in business activity are collectively known as the "business cycle." Upper and lower turning points (peaks and troughs) divide business cycles into periods of economic expansion and contraction. Since 1948, business cycle expansions have ranged in length from 12 months to 106 months, while contractions have varied from 6 months to 16 months. The current expansionary period has lasted almost 30 months.

The duration and intensity of individual business cycles fluctuate considerably. Severe and lengthy downturns in economic activity are classified as depressions, and less drastic declines in business activity are dubbed recessions.[1] Periods of economic contraction are characterized by negative growth in real Gross National Product and high levels of unemployment.

Post World War II declines in economic activity have been minor compared to the Great Depression of the 1930s. From 1948 to the present, the American economy has experienced eight recessions with an average span of 11 months. Periods of growth, excluding the current period, have averaged 46 months in length.

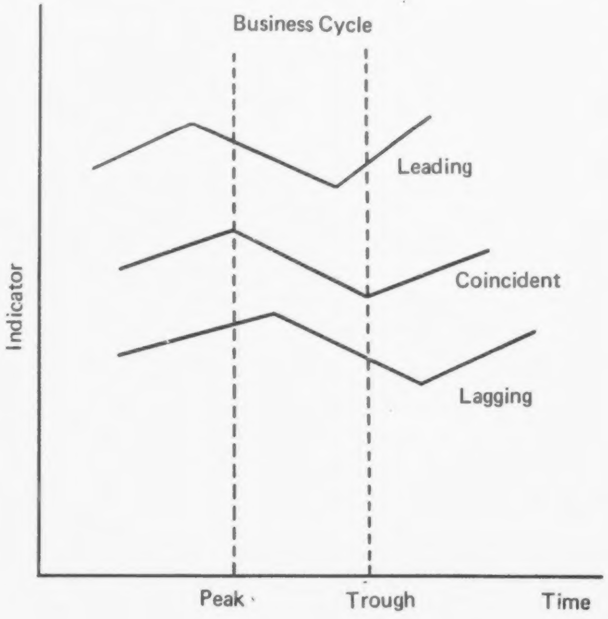
Economic indicators (special economic characteristics) are procured and maintained in order to establish turning points of past recessions and anticipate those of future recessions. Economic characteristics are termed indicators because of their relationship and sensitivity to the business cycle.

Economic indicators can be leading, coincident, or lagging. Leading indicators anticipate the business cycle; they decline before the peak of expansion and increase before the trough of recession. Leading indicators are monitored closely, as they can signal the onset of expansion or recession. Coincident indicators summarize the present state of economic affairs and are used (after the fact) to date peaks and troughs of business cycles. Lagging indicators confirm or refute information provided by coincident indicators. Figure 1 summarizes the behaviors of the leading, coincident, and lagging economic indicators.[2]

A single indicator can serve as a leading, coincident, or lagging economic indicator. Individual indicators, however, usually do not represent a broad spectrum of economic activity. If several indicators exhibit the same pattern relative to the business cycle and represent a diversity of economic activity, then they should perform better collectively than individually. This contention has

(continued on page 2)

FIGURE 1
Behavior of Economic Indicators



(continued from page 1)

been confirmed in practice, and has resulted in the construction of composite indexes. When carefully selected indicators of the same type (leading, coincident, or lagging) are weighted and combined, the result is a single composite index.

Indicators used to construct composite indexes are selected on the basis of how well they perform compared with the business cycle. The U.S. Department of Commerce has established the following criteria for component indicators:

1. Behavior historically consistent with the business cycle
2. No predominance of noncyclical (random) movements
3. Timely reporting of new and revised data
4. No large revisions necessary
5. Economic relevance

At this time, the Commerce Department publishes 111 individual time series classified as business cycle indicators by economic process. Analysts have selected a subset of 22 indicators to construct the three national composite indexes. For more information, see Ratti, who reviews and analyzes national composite indexes, the methodology of constructing indexes, and several numerical examples.[3]

NEBRASKA COMPOSITE ECONOMIC INDEXES

The Bureau of Business Research is currently developing composite economic indexes for Nebraska. The initial project phase emphasizes construction of (1) a composite index of coincident indicators to date turning points of Nebraska business cycles, and (2) a composite index of leading indicators to predict future turning points of business cycles. Simplicity and effectiveness are major considerations in formulating composite indexes.

Several problems were encountered during construction of the state indexes: (1) The plethora of economic indicator data at the national level is nonexistent at the state level; (2) The length of most Nebraska data series do not allow meaningful analysis of state business cycles; and (3) For some economic processes, national indicators must be used as proxies for unrecorded state indicators.

COMPOSITE INDEX OF COINCIDENT INDICATORS

The Nebraska composite index of coincident indicators summarizes current economic activity and dates the peaks and troughs of Nebraska business cycles. Nebraska indicators used to construct the composite index are listed below:

Component Indicator	Data Source
Nonfarm Wage and Salary Employment	Nebraska Department of Labor
Industrial Electricity	U.S. Department of Energy Energy Information Office
Deflated Retail Sales	Nebraska Department of Revenue

Nonfarm wage and salary employment represents economic activity in diverse sectors of the economy. Industrial electricity is used as an indicator of industrial production. Retail sales, in real terms, reflect current economic conditions as shown by consumer confidence and buying power. Component indicators are

(continued on page 6)

FIGURE 2
Nebraska Index of Coincident Economic Indicators
Index (1977=100)

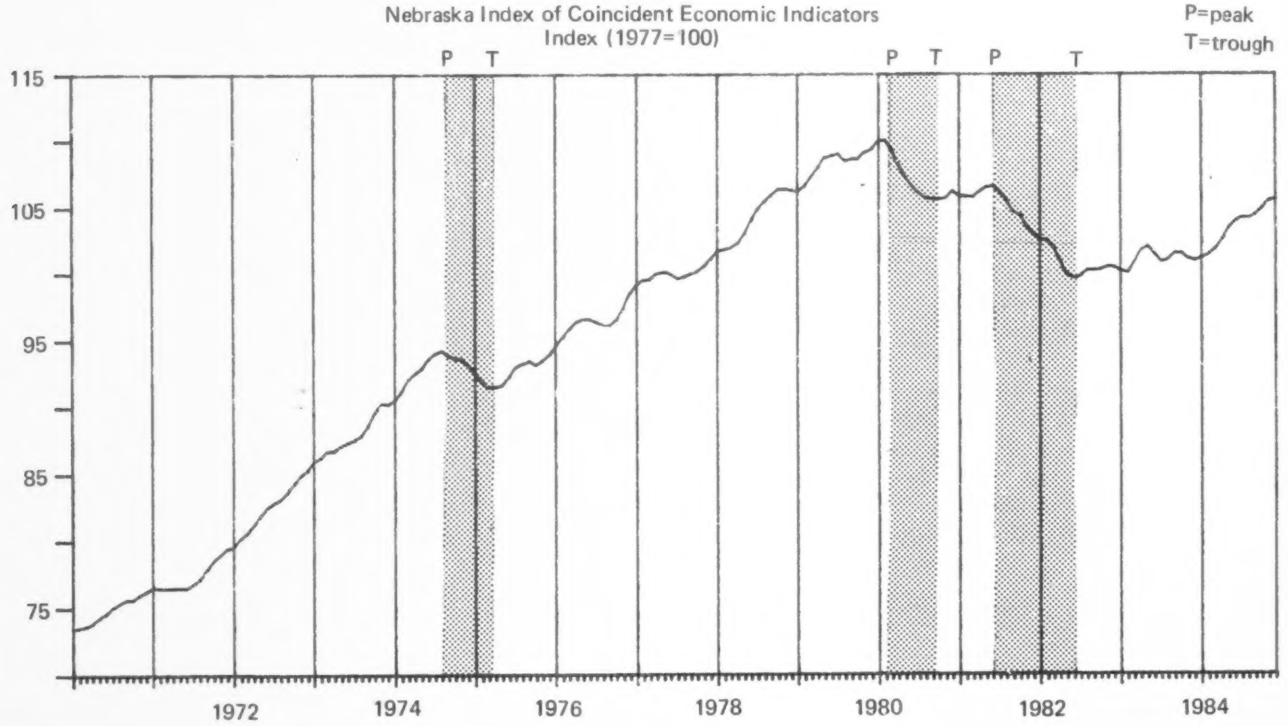


FIGURE 3
Nebraska Index of Leading Economic Indicators
Index (1977=100)

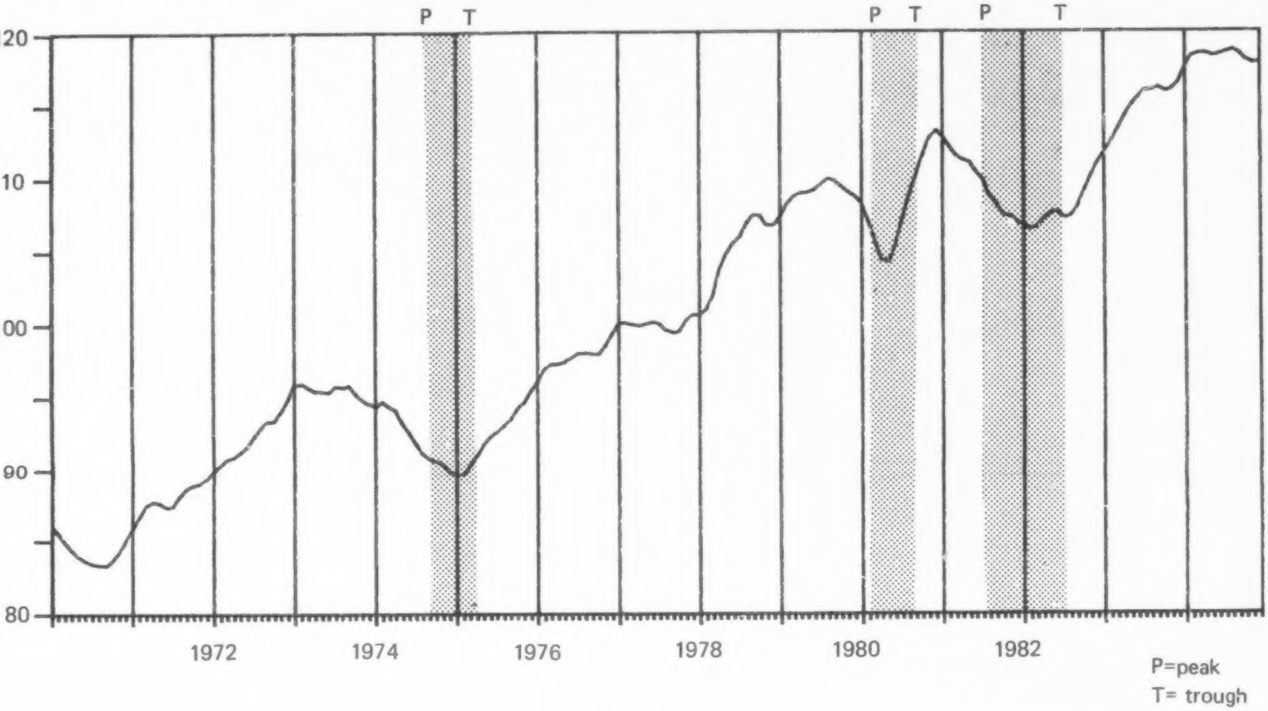
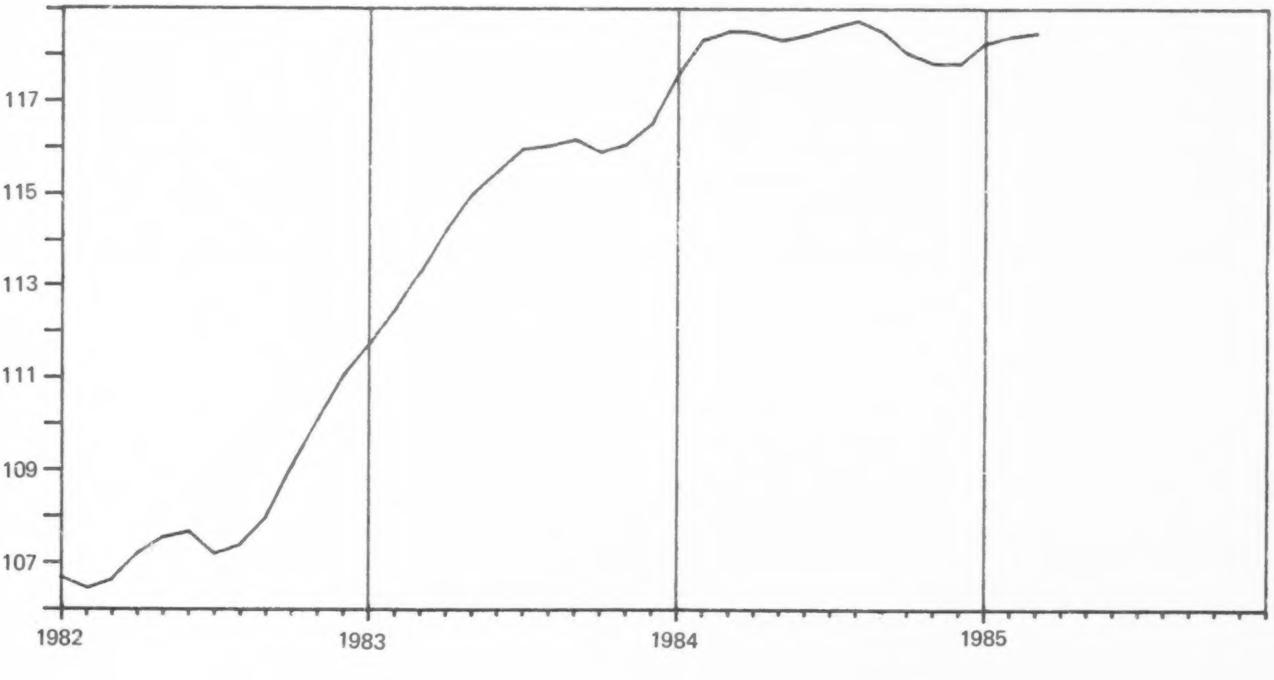


FIGURE 4
Nebraska Index of Leading Economic Indicators
index (1977=100)



Review and Outlook

Nebraska's nonagriculture sector of the economy was virtually unchanged on a month-to-month basis according to the Bureau of Business Research's physical volume index. The nonagriculture sectors recorded a 0.1 percent decline January-February 1985. Once again, cash receipts were not available for agriculture commodities from the U.S. Department of Agriculture for Nebraska and the United States.

A review of the month's activity among the nonagriculture sectors reveals a mixed picture. Construction and manufacturing recorded declines, and distribution and government rose.

The construction component of the net physical volume index dropped 1.9 percent. This component of the index has been seasonally adjusted, so the decrease reflects a slowdown in construction activity in the state. Long term and short term interest rates have declined since this measure was taken--an improving construction sector in Nebraska can be anticipated.

The manufacturing sector fell 0.6 percent January-February 1985. Manufacturing employment and output have changed little in the past twelve months, a reflection of the weak agriculturally based economy.

The distribution component of the Bureau's index gained 0.1 percent, and the government component rose 0.4 percent. These changes are not statistically significant and indicate that Nebraska economic output has changed little. The government

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

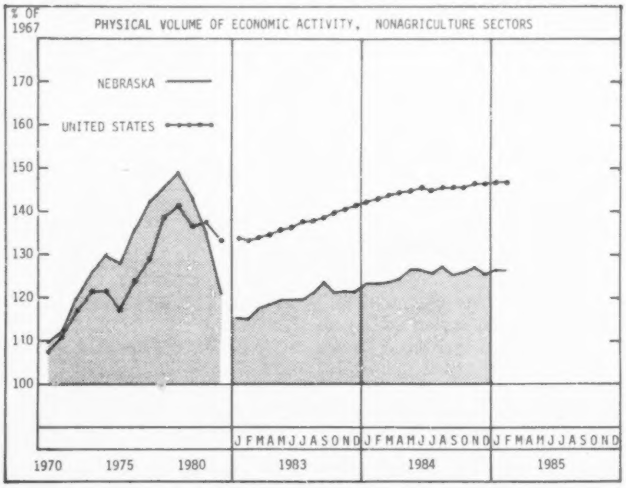
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

February 1985	Current Month as Percent of Same Month Previous Year		1985 to date as percent of 1984 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	106.6	106.5	106.7	106.5
Construction	99.2	106.7	101.6	109.5
Manufacturing	104.3	102.5	104.8	103.5
Distributive	105.9	107.9	105.9	107.4
Government	114.9	106.6	114.8	106.6
Physical Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	102.9	103.0	103.0	103.0
Construction	95.0	102.2	97.2	104.8
Manufacturing	103.9	101.9	104.0	102.5
Distributive	102.1	104.1	102.2	103.6
Government	106.1	101.0	105.9	101.0

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	374.3	441.3
Construction	264.0	426.9
Manufacturing	372.0	324.9
Distributive	380.3	506.0
Government	414.7	447.9
Physical Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	126.7	146.9
Construction	74.6	120.6
Manufacturing	149.7	127.9
Distributive	119.8	159.4
Government	152.4	149.2


PHYSICAL VOLUME OF ECONOMIC ACTIVITY, NONAGRICULTURE SECTORS

3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

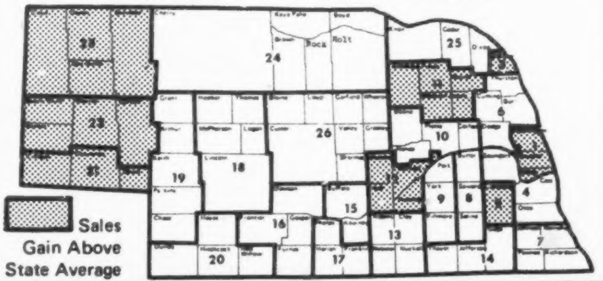
Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	Feb. 1985 as percent of Feb. 1984	Feb. 1985 as percent of Feb. 1984	1985 to date as percent of 1984 to date
The State	106.8	103.6	NA
1 Omaha	116.6	112.5	NA
Bellevue	128.8	NA	NA
Blair	98.2	NA	NA
2 Lincoln	107.8	105.3	NA
3 So. Sioux City	111.4	104.6	NA
4 Nebraska City	103.2	92.0	NA
6 Fremont	123.1	103.1	NA
West Point	97.7	NA	NA
7 Falls City	88.8	93.8	NA
8 Seward	96.0	87.5	NA
9 York	96.7	92.9	NA
10 Columbus	96.4	96.0	NA
11 Norfolk	108.1	104.5	NA
Wayne	120.4	NA	NA
12 Grand Island	110.6	104.7	NA
13 Hastings	102.6	95.4	NA
14 Beatrice	84.9	86.8	NA
Fairbury	105.1	NA	NA
15 Kearney	92.2	93.2	NA
16 Lexington	110.7	101.6	NA
17 Holdrege	104.0	95.0	NA
18 North Platte	97.8	94.8	NA
19 Ogallala	114.7	88.4	NA
20 McCook	107.9	97.8	NA
21 Sidney	104.6	104.1	NA
Kimbell	118.1	NA	NA
22 Scottsbluff/Gering	108.3	105.5	NA
23 Alliance	120.2	107.2	NA
Chadron	119.3	NA	NA
24 O'Neill	114.1	100.7	NA
25 Hartington	110.0	102.0	NA
26 Broken Bow	117.9	98.1	NA

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

February 1985 as Percent of February 1984 In Nebraska's Planning and Development Regions



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component of the Nebraska economy is not comparable with that of other states, because the government sector includes public power. In other states, power is part of the service or distribution sector.

Nebraska retail sales in February totaled $627 million, up from $605 million in February of 1984. When adjusted for price changes, total retail sales increased 1.1 percent. The commodity component of the consumer price index rose a scant 2.0 percent February 1984 to February 1985. The commodity component of the consumer price index is growing at a rate less than half that for the total consumer price index.

Nonmotor vehicle sales in February 1985 were ahead of year ago levels, but motor vehicle sales were down. Nonmotor vehicle sales were $560 million, compared with $525 million one year ago. Motor vehicle sales, on the other hand, fell to $66.5 million in February 1985, compared with $80.5 million in February 1984. Retail sales were stronger in the metropolitan Omaha and Lincoln areas. In Omaha, sales advanced 16.6 percent above year ago levels, while in Lincoln sales expanded 7.7 percent. Fremont, South Sioux City, Wayne, Lexington, Ogallala, Kimball, Alliance, and O'Neill also recorded strong February 1985 sales compared with one year previous.

Broken Bow led Nebraska cities with a 13.4 percent increase in its city business index. Fremont ranked second with a 12.3 percent gain, and Chadron finished third with a 10.8 percent rise in its city business index.

The dichotomy in Nebraska's economy continues, with an advancing metropolitan area and a faltering agriculture sector. Income, employment, and output are increasing in the metropolitan Lincoln and Omaha area, but outstate Nebraska output is virtually unchanged. Some nonmetro areas show small gains; in balance, however, the outstate region grew little in income, output, and employment during the past twelve months.

Declining interest rates will have a positive impact upon the state economy. The cost of production in the agriculture and nonagriculture sector will be reduced. Net savers, however, will realize a reduction in their incomes. Borrowers are expected to benefit more than savers, since the return on savings frequently does not enter the consumption stream.

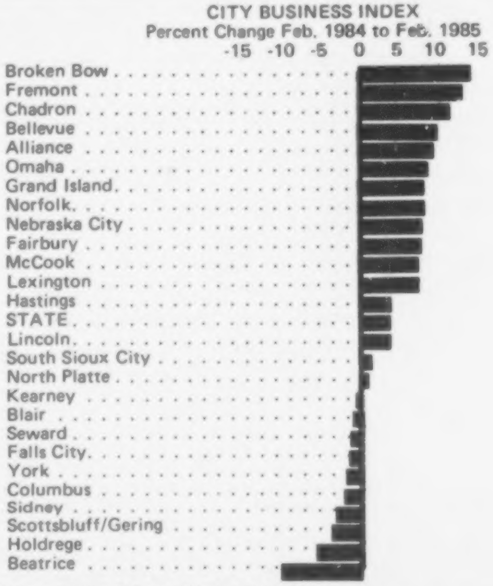
In the coming twelve months, the national economy is expected to expand two to three percent. The metropolitan area of Nebraska will probably match this increase in output, but the nonmetro portions will see no growth in their local economies

DONALD E. PURSELL

5. PRICE INDEXES

February 1985	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	317.4	103.7	103.6
Commodity component	284.0	102.0	102.1
Wholesale Prices	309.2	100.1	100.3
Agricultural Prices			
United States	247.0	93.6	93.4
Nebraska	250.0	96.2	95.6

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.



Source: Table 3 (page 4) and Table 4 below.

4. February 1985 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	103.2	107.2	120.0
Alliance	101.5	119.8	120.2
Beatrice	99.6	72.9	125.1
Bellevue	102.2	56.4	126.0
Blair	102.2	100.9	117.8*
Broken Bow	104.4	257.2	114.2
Chadron	116.9	41.3	116.6
Columbus	101.7	92.6	126.4
Fairbury	102.2	306.8	119.3
Falls City	105.4	165.2	106.5
Fremont	102.7	147.3	111.8*
Grand Island	106.7	132.7	107.7
Hastings	101.7	192.6	125.0
Holdrege	101.8	23.9	123.1
Kearney	107.1	120.7	113.1
Lexington	106.3	117.4	103.5
Lincoln	102.6	102.3	120.8
McCook	99.4	284.8	122.3
Nebraska City	106.1	259.6	110.9
Norfolk	109.5	125.6	113.3
North Platte	103.3	124.8	110.5
Omaha	102.2	120.5	124.9
Scottsbluff/Gering	99.6	29.3	NA
Seward	102.0	118.6	115.0
Sidney	99.7	43.2	109.2
So. Sioux City	99.4	58.6	119.9
York	100.7	111.9	114.9

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

(continued from page 2)

weighted equally and combined to form the composite index of coincident indicators. Data from 1970-present were used to construct the coincident index depicted in Figure 2. Shaded areas represent periods of recession, with peaks (P) and troughs (T) as indicated.

Corresponding periods of recession in Nebraska and the United States since 1969 are listed below:

U.S. Recession	Nebraska Recession
Dec. 1969-Nov. 1970	None
Nov. 1973-Mar. 1975	Aug. 1974-Mar. 1975
Jan. 1980-July 1980	Feb. 1980-Sept. 1980
July 1981-Nov. 1982	June 1981-June 1982

According to the state index of coincident indicators, no recession occurred in Nebraska during 1969-1970. Also, the lengthy 1973-1975 national recession was shorter and less severe in Nebraska. The index is roughly coincident--peaks and troughs are subject to revision as work progresses on the index.

COMPOSITE INDEX OF LEADING INDICATORS

The Nebraska composite index of leading economic indicators was constructed using component indicators that lead turning points of the composite coincident index. Individual indicators and their data sources used to construct the Nebraska index are: initial claims for unemployment insurance, Nebraska Department of Labor; prices received for all farm products, Nebraska Crop and Livestock Reporting Service; stock prices of 500 common stocks, Standard and Poor's Corporation; value of let construction contracts, F.W. Dodge Division of McGraw Hill; average weekly earnings in manufacturing, Nebraska Department of Labor.

Except for stock prices, all components are Nebraska indicators. Since monthly money and credit indicators are not available for Nebraska, national proxies are required. Money supply (M2) and stock prices (500 common stocks) were tested; stock prices were chosen as the proxy. The index could be improved in the future by the inclusion of a Nebraska money and credit indicator.

Component indexes were given equal weights and combined to form the Nebraska composite leading index shown in Figure 3. Figure 3 shows clearly that the leading index falls before the peak and rises before the trough of each recession.

Decision rules must be established if the leading index is to be useful. The national leading index uses the "three consecutive declines" rule to predict the onset of a recession; this can result in false signals if declines are small. For the Nebraska economy, the following rule has successfully predicted the last three recessions: "three consecutive declines totaling one percent or more signal the onset of a recession." The average lead time from recognition to commencement of a recession is 4.3 months. Predicting recovery is less precise than predicting a recession, but the following rule has been adopted: "two consecutive increases signal the onset of recovery." The average lead time from recognition to commencement of recovery is less than one month.

During the first half of 1984, the Nebraska leading index flattened and then declined during September, October, and November. The total decline in the leading index from September through November was slightly less than one percent. During December of 1984 and the first three months of 1985, the leading index increased overall (Figure 4). Strict application of the Nebraska rule for predicting the onset of a recession would indicate no economic slump during 1985. The three consecutive declines in the leading index during the last half of 1984 should, however, serve as a warning of possible deteriorating economic conditions during the latter part of 1985.

SUMMARY

This article presents preliminary results--the project to construct composite indexes for Nebraska has been underway since January of 1985. Tests of additional indicators, variation of weighting schemes, and further analysis of turning point dates are slated for the future. By the end of 1985, significant improvements in the Nebraska composite indexes should allow regular publication.

CHARLES L. BARE and MERRILL E. WARKENTIN

[1] "Growth recessions" are periods when economic growth slows without contraction.

[2] Edward Y. George, "New Economic Indicators for El Paso," *Southwest Business and Economic Review*, 18, No. 2 (November 1980), pp. 2-3.

[3] Ronald A. Ratti, "A Descriptive Analysis of Economic Indicators," *Review: Federal Reserve Bank of St. Louis*, 67, No. 1 (January 1985), pp. 14-24.

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BUSINESS IN NEBRASKA

July 1985
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THE FUTURE OF THE NEBRASKA FOOD SYSTEM

The Nebraska food system is powerful and vulnerable. The state is a leader in the production of corn, hogs, beef cattle, beans, and other agricultural products. Twenty-one percent of all Nebraskans are employed on farms and in food related industries. Agricultural exports generated $1.8 billion for the Nebraska economy in 1982, a figure smaller than usual because of the deep recession which plagued the national economy at that time.

A relatively small portion of the foods that Nebraskans eat is produced in the state. Food is supplied to Nebraskans by producers, processors, shippers, brokers, distributors, and retailers. Not only does the complexity of this system add to the cost of food, but the large number of links in the system means that there are many points where it is vulnerable--to bad weather, increases in the cost of energy, labor and management disputes, and other events. These and other systemic factors can explain many current farm problems. High levels of farm debt, monocultural farming, deterioration of rural communities, and soil erosion can be traced to the predominance of high production and capital and chemical intensive agriculture in the state. This article describes the condition of the Nebraska food system and argues that diversifying agriculture and producing specialized vegetable crops can tap an important market--the local Nebraska market.

MONOCULTURE

In the name of economic efficiency, Nebraska agriculture has become less diversified. The small integrated farm producing several crops and livestock has largely been replaced by large monocultural operations. In the past thirty-five years the acres of harvested cropland have remained constant, while the average size of a Nebraska farm has increased by 39 percent and the number of farms has fallen by 69 percent (Figures 1 and 2). Further, corn and wheat account for more than 50 percent of the production from Nebraska's harvested cropland. If hay and soybeans are added, the portion of harvested cropland devoted to these crops is 94 percent. The implications of this development are larger than the obvious hazard of dependence upon too few markets. Since farmers produce few of the inputs necessary for growing these crops, they must depend to a great extent upon purchased inputs. A farmer raising only corn does not have livestock manure to use as a fertilizer. If beef is to be produced in feedlots, the cattle must be fed with purchased corn. The manure produced by the feedlot must be discarded, often resulting in ecological damage.

Monocultural farming has been praised for its efficiency. Efficiency means that an activity produces desired effects. If the effect desired is an increase in production for export, then the monocultural trend has been efficient. Over the past twelve years, farm exports for the U.S. have tripled. Nebraska has shared in this boom. If the desired effect is stable farm communities, increased real income for farmers, improved availability of affordable nutritious food for Nebraska consumers, or the ability to live within ecological margins, however, this trend may not be deemed 'efficient'.

FINANCIAL CONDITION

In a recent article, UN-L ag economist Bruce B. Johnson states that "a financial crisis of major proportions currently grips a significant portion of the U.S. farming sector. . .in Nebraska, present financial problems appear to be even more acute than what prevails nationwide." By 1983, agricultural debt in the state grew to more than ten times the 1960 level. Nebraska ranks fourth in the nation in debt load per farm.

The financial condition of Nebraska agriculture is difficult to analyze. A different picture emerges for various groups of farmers in the state. For example, a balance sheet for Nebraska agriculture as a whole shows a relatively sound financial position. A major reason for this, however, is the large number of non-farm landlords in the state. These seventy-five thousand landowners own nearly 32 percent of all the farmland in Nebraska, yet they account for little of the agricultural debt in the state. Non-farm landlords are in a relatively good financial position and tend to make overall Nebraska farm finance appear sound. If one excludes the non-farm landowners' holdings, however, one sees a very different picture.

There are 42,000 indebted farmers in the state. Many of these farm operators increased their debt during the 1970s. This was a period when land values, generally the basis upon which money is loaned to farmers, rose substantially. More recently, however, the value of land has decreased. This, coupled with low prices for commodities, has precipitated a financial crisis. Many farmers are so deeply in debt that they are increasingly becoming credit risks, according to Johnson. He emphasizes that "whether these farmers could sustain another low income year with further asset depreciation is debatable. Economic survival lies in the balance--a delicate balance indeed."

(continued on page 2)

This article was derived from a larger study, *A Step Toward Regeneration: A Study of the Nebraska Food System*, published by The Cornucopia Project of Rodale Press, 33 East Minor Street, Emmaus, Pennsylvania 18049

FIGURE 1
Decline in Number of Nebraska Farms

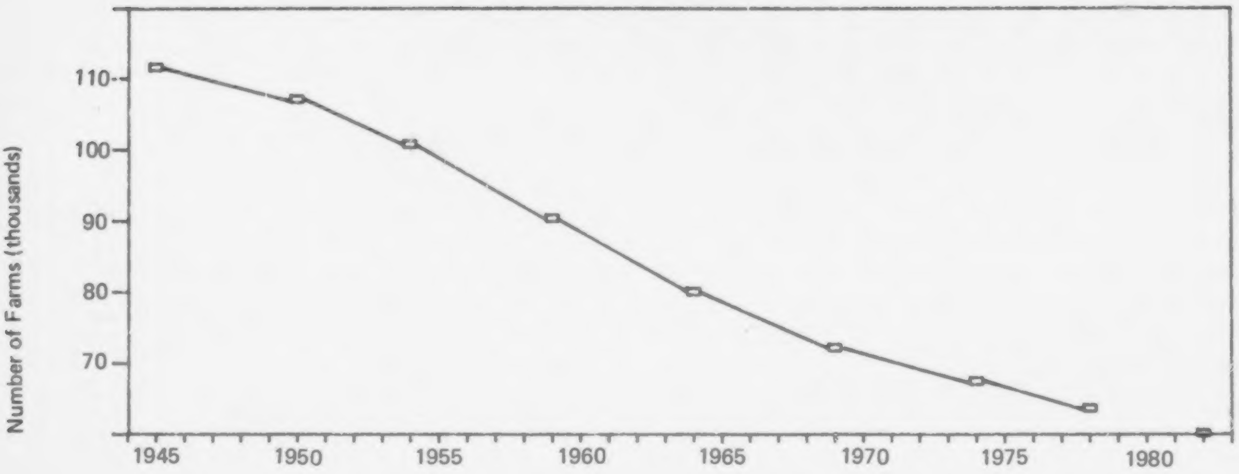
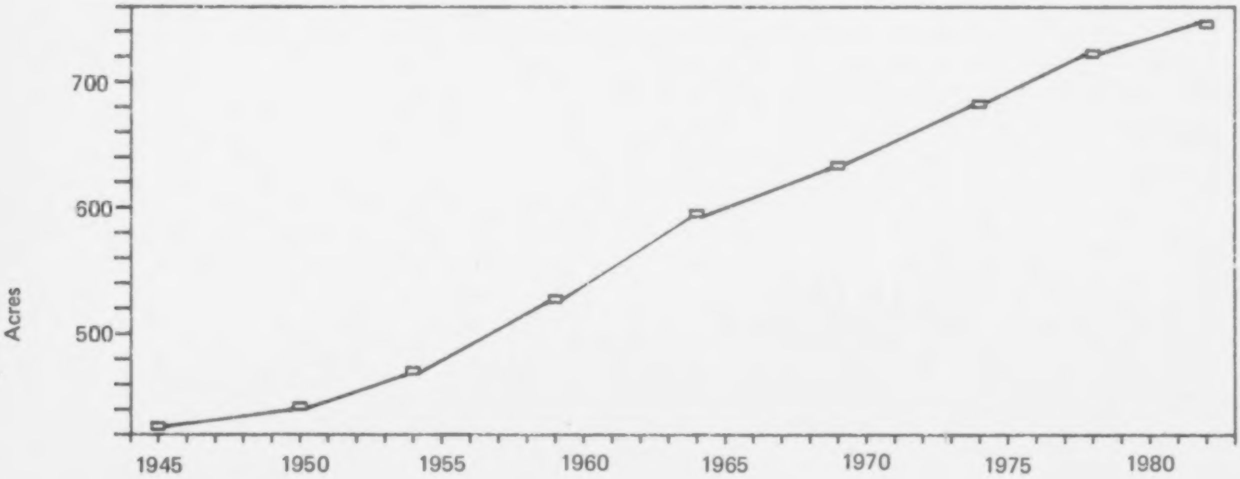


FIGURE 2
Increase in Farm Size in Nebraska



Source: *Nebraska Census of Agriculture*

(continued from page 1)

Larry D. Swanson has pointed out that whether a rural community thrives is closely related to the size of its surrounding farms. Swanson found that as farms become larger and land holdings are concentrated in fewer hands, the number of shops, churches, and professional people in the community declines. The trend in Nebraska has been toward fewer larger farms. The combination of this trend, unstable income, and burgeoning farm debt has meant a great deal of hardship for many small farmers and their communities. Swanson also argues that the last large group of new farmers in Nebraska comprised veterans of World War II. Since that time, the average age of farmers has increased. Recently, however, a new group of young farmers has attempted to enter the farming profession. Trouble in the ag economy is especially hazardous to this group. They may account partially for the record numbers of farm auctions and foreclosures in 1982.

SOIL EROSION

A major problem facing the food system of Nebraska is soil erosion. Topsoil carries the nutrients necessary to support plant growth. This soil is formed has plant and animal tissue and animal wastes decompose into inorganic plant nutrients. . .a very slow process. Each year in Nebraska more than 117 million tons of topsoil are lost due to water erosion--enough soil is washed from Nebraska land each year to bury the state capitol and the ten acre capitol grounds under 609 feet of rich topsoil. Since the capitol building is 400 feet tall, the statue of the Sower on top of the building would be 209 feet beneath the surface. This does not include the soil which Nebraska loses to wind erosion.

An overall estimate of soil loss due to wind erosion is not available. This is because of variation across the state in the land's condition. The soil in many areas of Nebraska is sufficiently

(continued on page 3)

(continued from page 2)

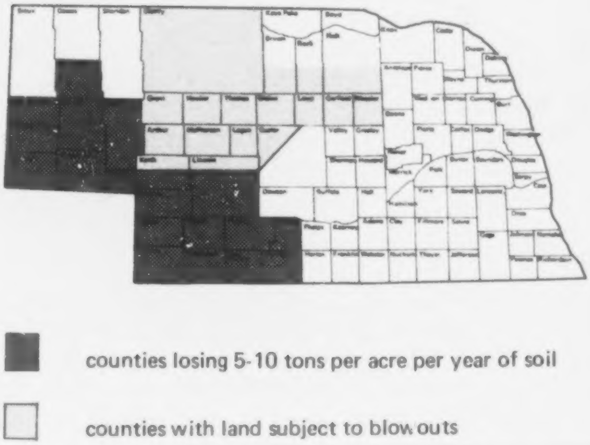
sheltered from the wind, and has enough vegetation and residue to prevent severe wind erosion. Many counties, however, are subject to large wind erosion soil losses. (Map 1) Keith Ticknor, a forester and resource conservationist with the United States Soil Conservation Service, points out two trouble spots for wind erosion in Nebraska. First, the western and southwestern wheat growing regions (including most of the Panhandle) are subject to typical soil losses of 5 to 10 tons per acre each year. This high rate of soil loss is an important problem. The soil will regenerate at a rate of 5 tons per year. That is, the soil can tolerate 5 tons per year of erosion--the nutrients, water, and organic matter in the soil can be roughly replaced at this rate. This tolerable rate of soil loss, though, applies to the land's tolerance and not the tolerance of crops. Some crops, such as corn, will sustain damage at soil loss rates well below 5 tons per acre.

The second trouble spot for wind erosion in Nebraska is the Sandhills. Yearly erosion rates of 50 tons per acre are not uncommon on rangeland in this area. Increasing irrigation development has led to additional soil erosion in the Sandhills. The Soil Conservation Service estimates that each year 15 to 20 tons of soil are lost on acres where center pivot irrigation is used on sandy soil.

Plants require sunshine, as well as nutrients and water. Each year because of soil erosion, Nebraska loses over 1000 acre feet of water that would have been available to support plant growth. In addition, the state loses 49 million pounds of nitrogen and over 12 million pounds of phosphorous, nutrients which are crucial to sustain plant growth. As erosion depletes the productivity of the soil, additional nutrients must be added. These additional nutrients must be purchased by farmers. In order to replace the nutrients lost due to soil erosion, Nebraska farmers must pay about $18.6 million for commercial fertilizers.

In addition to the loss of soil nutrients, the value of the state's cropland is diminished through soil erosion. Using the average value of farmland in the state and the average depth of the state's topsoil, the money value of this loss to Nebraska may be estimated at $98 million each year, or about 75 percent of the amount (less farm expenses) earned by Nebraska farmers in 1980. In the economist's parlance, this represents a 'disinvestment'. While it is a disinvestment in money terms, it is more importantly a disinvestment in the future of Nebraska farming. By allowing the land to be blown and washed away, Nebraskans are allowing the destruction of a way of life.

MAP 1
Erosion Prone Lands by County


▇ counties losing 5-10 tons per acre per year of soil
☐ counties with land subject to blowouts

FOOD EXPORTS AND IMPORTS

Each year Nebraska consumers eat 1.5 billion pounds of food at a cost of $1.37 billion. Since agriculture is such an important industry in the state, one may be lead to believe that a large amount of consumption bodes well for the state economy. After all, since the state produced $1.7 billion in agriculture commodities, $1.37 billion in food consumption represents substantial support for the state's leading industry. Yet this line of reason ignores an important point. There is a difference between raw agriculture commodities and consumable food products. One difference is processing. Even simple foods require some processing. Raw fruits and vegetables must still be harvested, packed, shipped, and displayed. In addition to processing, the consumption of food in the state will not support the state's agriculture unless farmers grow the foods that people want to eat. In the state, little food is produced for human consumption.

Because Nebraska processes little food and produces very few vegetables and fruits, Nebraska imports at least $777 million of food each year. Food imports represent a substantial drain on the state economy. If some of these dollars can be retained within the state, economic activity can be expanded. This expansion also would reflect economic activity generated through 'multiplier effects'. For example, if one dollar of food imports were replaced with in-state production, there would be an initial impact of one dollar as some individual in the state receives one dollar of income. As workers are paid to produce the additional output and as suppliers are paid for equipment and raw materials, the initial impact generates secondary impacts on economic activity. The resulting effects are greater than one dollar. In general, a one dollar increase in spending (generated either by new spending or by retaining dollars that are presently leaving the economy) will result in an increase within the state of $2.53.

In a similar way, the economic impact of the state's exports of agricultural products may be assessed. The value of Nebraska's exports of agricultural commodities is $1.7 billion. The value of the state's export of consumable food products is $32 million. This represents a substantial portion of Nebraska's economic activity. According to the Nebraska Input-Output Tables, each new dollar generated in the crop sector expands state economic activity by $2.14. To properly assess the potential impact of diverted imports, it is necessary to balance these money flows against the revenues that are lost when acres are diverted from traditional Nebraska grain crops. Assuming that the state food system could be fully self sufficient, the state would only have to divert 5.8 percent of harvested cropland from corn or wheat.

(continued on page 6)

Review and Outlook

Output from the state's nonagriculture economy declined 0.6 percent on a month-to-month basis. Physical output includes all goods and services. Agriculture production is excluded because data are unavailable from the U.S. Department of Agriculture.

An examination of change by sector indicates construction recorded an increase, while manufacturing, distributive trade, and government registered decreases. The Bureau of Business Research's net physical volume index for construction jumped 4.3 percent February-March 1985. This is the first gain in the construction component of the index since May 1984. Interest rates have been dropping for some time and this should help construction during the remainder of the year. Most residential and nonresidential construction activity is concentrated in the state's two metropolitan areas surrounding the cities of Lincoln and Omaha.

Output from the state's manufacturing sector fell 0.6 percent on a monthly basis. There has been little movement in physical output from this sector for over a year.

The distributive trade component of the Nebraska economy fell slightly February-March 1985. According to the Bureau of

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

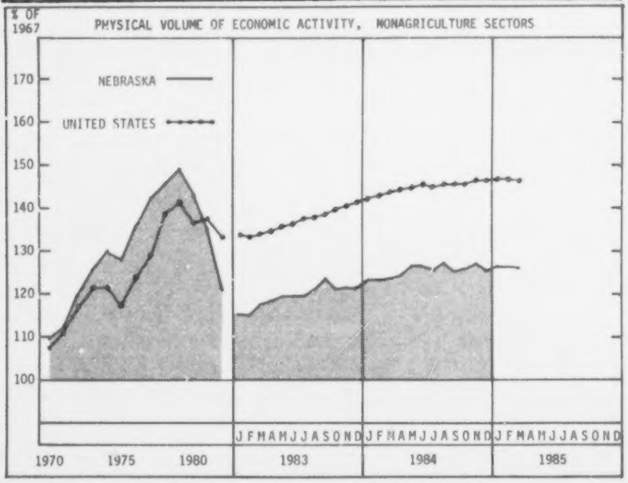
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

March 1985	Current Month as Percent of Same Month Previous Year		1985 to date as percent of 1984 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	105.3	105.7	106.3	106.2
Construction	94.7	100.5	99.1	106.7
Manufacturing	101.3	101.0	103.6	102.7
Distributive	105.5	107.7	105.7	107.4
Government	113.9	106.6	114.5	106.6
Physical Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	101.8	102.4	102.6	102.8
Construction	90.9	96.8	95.0	102.2
Manufacturing	101.7	100.9	103.3	102.0
Distributive	101.7	103.8	102.0	103.6
Government	105.3	101.6	105.7	101.3

2. March 1985 CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	373.7	441.5
Construction	276.1	414 6
Manufacturing	369.8	326.3
Distributive	379.4	506.1
Government	412.6	449.9
Physical Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	126.0	146.6
Construction	77.8	116.8
Manufacturing	148.7	128.4
Distributive	119.0	158.8
Government	151.0	150.0



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

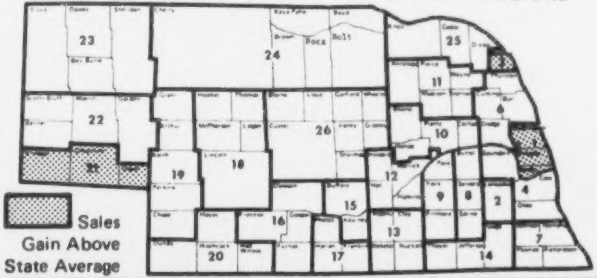
Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	March 1985 as percent of March 1984	March 1985 as percent of March 1984	1985 to date as percent of 1984 to date†
The State	107.5	106.7	97.8
1 Omaha	116.8	114.7	103.9
Bellevue	126.0		
Blair	110.3		
2 Lincoln	106.9	106.9	96.7
3 So. Sioux City	117.5	111.7	103.0
4 Nebraska City	105.7	97.0	88.2
6 Fremont	116.3	104.7	95.3
West Point	107.2		
7 Falls City	102.4	96.2	89.1
8 Seward	93.7	94.3	84.4
9 York	95.9	93.1	87.3
10 Columbus	104.6	101.6	91.3
11 Norfolk	107.4	105.8	94.8
Wayne	73.2		
12 Grand Island	107.0	103.7	96.8
13 Hastings	110.3	107.1	93.9
14 Beatrice	101.4	96.8	84.7
Fairbury	96.1		
15 Kearney	100.1	97.2	88.9
16 Lexington	105.8	99.5	90.8
17 Holdrege	106.4	101.7	88.5
18 North Platte	97.9	94.7	89.3
19 Ogallala	87.1	85.1	83.0
20 McCook	104.5	99.9	93.0
21 Sidney	105.9	110.3	100.5
Kimball	130.7		
22 Scottsbluff/Gering	95.9	96.1	93.2
23 Alliance	105.9	96.8	95.0
Chadron	101.9		
24 O'Neill	99.2	99.4	90.2
25 Hartington	94.2	87.4	90.6
26 Broken Bow	94.9	97.6	89.9

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1985 YEAR TO DATE AS PERCENT OF 1984 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



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† Note: The year-to-date totals exclude approximately $120 million in sales that were omitted from January's figures by the Department of Revenue. If these sales were included, the state's year-to-date ratio would increase by 6.1 percentage points. Individual regions would be affected differently.

(continued from page 4)

Business Research's index, this sector slumped 0.7 percent on a month-to-month basis.

Nebraska net taxable retail sales in March were 6.7 percent above March 1984. Motor vehicle sales were up as well as non-motor vehicle sales, both in nominal and price adjusted terms. Inflation continued to moderate as measured by the commodity component of the Consumer Price Index. This element has risen only 2.4 percent over the past year.

Caution is advised in interpreting the state's year-to-date retail sales and sales for cities and regions as approximately $120 million in sales were excluded from January's figures by the Department of Revenue. Until this problem is resolved, total retail sales on a year-to-date basis will remain something of a mystery.

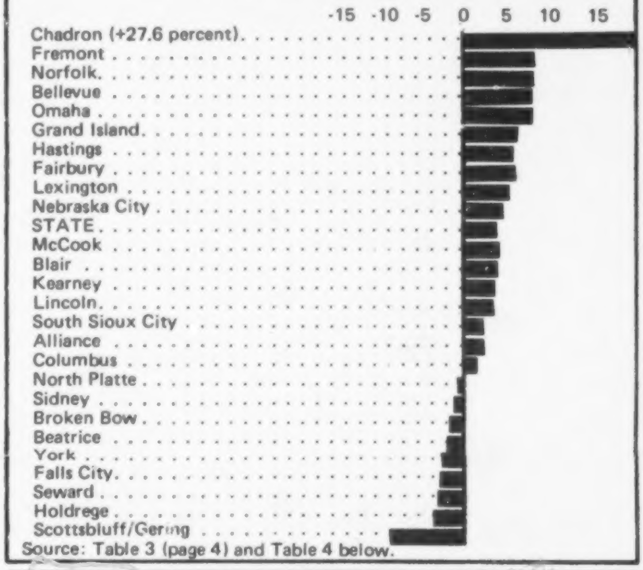
Chadron topped Nebraska cities in the Bureau's city business index. Fremont, Norfolk, Bellevue, and Omaha followed.

A slight improvement in the Nebraska economy is expected in the last half of 1985 because of an anticipated acceleration in growth at the national level. Growth will be stimulated by an accommodative monetary policy that will continue to push interest rates lower. Nationally, housing starts are expected to be particularly strong because of falling interest rates. When housing increases, it affects a number of industries throughout the economy. Nebraska firms will begin to experience somewhat better conditions in the remainder of 1985.

The agriculture sector of the economy, however, remains under pressure. Declining interest rates will aid the component, but liquidation and consolidation are expected to continue. Cattle prices are projected to be slightly higher, but grain exports are expected to decline further from current depressed levels. Financing and credit problems are likely to continue to deteriorate before improving sometime in 1986.

DONALD E. PURSELL

CITY BUSINESS INDEX
Percent Change March 1984 to March 1985



Source: Table 3 (page 4) and Table 4 below.

4. March 1985 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	102.8	99.0	87.5
Alliance	100.7	99.4	91.0*
Beatrice	99.3	78.8	84.6
Bellevue	101.6	47.7	86.8
Blair	101.6	77.1	79.4*
Broken Bow	103.7	106.0	73.9
Chadron	114.4	8,524.6	88.7
Columbus	101.4	90.6	78.9
Fairbury	101.3	509.8	79.0
Falls City	106.5	30.6	95.1
Fremont	102.9	108.0	94.2*
Grand Island	105.5	133.5	104.8
Hastings	102.1	133.0	89.0
Holdrege	103.0	25.8	83.4
Kearney	106.6	116.3	107.4
Lexington	105.7	105.3	102.6
Lincoln	102.0	94.6	85.8
McCook	99.2	178.3	96.1
Nebraska City	105.5	96.1	92.3
Norfolk	110.0	120.7	91.9
North Platte	103.6	99.7	97.2
Omaha	101.6	108.8	79.5
Scottsbluff/Gering	99.8	26.0	118.3
Seward	102.2	98.5	77.6
Sidney	99.4	65.3	88.9
So. Sioux City	98.3	44.4	88.1
York	99.9	106.3	83.7

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

5. PRICE INDEXES

March 1985	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	318.8	103.7	103.7
Commodity component	285.3	102.4	102.2
Wholesale Prices	308.7	99.2	100.0
Agricultural Prices			
United States	245.0	92.5	93.1
Nebraska	238.0	90.5	93.9

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

(continued from page 3)

Using a more modest assumption, that of self sufficiency only in fresh vegetable crops, Nebraska could divert less than 1 percent of harvested cropland and net more than a $163 million boost to the state economy--a figure representing 10.4 percent of farm products of Nebraska in 1980.

Is it possible to grow vegetable crops profitably in Nebraska? The evidence collected so far is positive. A 1967 study conducted by the UN-L Horticulture Department shows that the state's climate and soil are suitable for high levels of vegetable production. New research has led to new technology for vegetable production. For example, seedling transplants and industrial gels allow the effective expansion of the growing season. New public-private enterprises, 'rural ventures', could also be used for the new vegetable industry. Control Data started rural ventures as a way for small farmers to operate as a cooperative and to profitably grow and market specialty crops. Today there are 8 rural ventures cooperatives around the country that produce meats, vegetables, dairy products, and fiber. Each cooperative consists of 20 to 30 small farms (80-120 acres) and requires low per farm capital investment. Rural ventures also take advantage of small computers and shared equipment to benefit members.

To summarize, 67 percent of the food consumed by residents is produced in other states and countries. Nebraska can not become less dependent upon out-of-state sources for bananas and citrus fruit, but there are areas (such as fresh vegetables) where the state could become more self reliant. Nebraska consumers can benefit by replacing food imports. Higher quality, fresher produce at reduced prices can result from non-imported food. The lower prices are due in part to lower transportation costs. The USDA estimates conservatively that $.05 of every food dollar goes to transportation costs. For Nebraska, this means that consumers spend an estimated $46 million annually just to transport food from California, Florida, Texas, and other states. This figure could be smaller if dependency on distant food sources were reduced.

THE NEBRASKA FOOD SYSTEM AT A CROSSROAD

High farm debt, soil erosion, and dependence on out-of-state sources for food are parts of a much larger problem. In a sense, they are only symptoms of an agricultural system based on capital and chemical intensive, large, monocultural farming. If the farm crisis is to be resolved, it will be insufficient to deal with problems separately. Nebraska's current agricultural debt problems, for example, will not be solved by additional financing for overburdened farmers. These debt problems are part of a larger problem in the structure of over-capitalized farming. To solve problems in the food system, symptoms must be separated from the disease. The structure of agriculture must change.

Rural communities, farmers and small farms, the soil and water are all parts of a story. It is a story of a powerful, yet vulnerable giant. The food system is at a crossroads. It can continue toward more self destruction with increasing financial and ecological devastation, or it can be rescued by a policy of sustainable agriculture that fulfills the needs of Nebraska's farmers and citizens at large.

PAUL S. ESTENSON

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NEBRASKA RETAIL SALES, 1983-1984

Nebraska's 1984 net taxable retail sales totaled $9,073 million, down $116 million from the 1983 amount of $9,189 million (Table 2, page 2). The primary reason for this decline is the difference in the tax bases between 1983 and 1984. Without this change, sales would likely have shown an increase.

The net taxable sales figures presented in this article are derived from general sales tax figures compiled by the Nebraska Department of Revenue. The sales tax applies to most retail sales and is complemented with a general use tax. Beginning in October 1983, however, the tax base was altered considerably when food items for home consumption were exempted from the sales tax. Although no precise measure of this impact has been made, it is estimated that taxable non-vehicle sales were reduced approximately 13.0 percent at the state level. Obviously this percentage varies from county to county, as more populous counties with a more diversified sales base are affected less than smaller counties. The sales figures contained in this article are the actual sales recorded and have not been adjusted to account for the difference in bases. This caveat should be kept in mind when reading the remainder of the article.

The previously mentioned loss of $116 million dollars in total sales represents a decline of 1.3 percent. Motor vehicle sales were $1,123 million in 1984, an increase of $124 million (12.4 percent) from 1983; non-vehicle sales in 1984 amounted to $7,950 million, down $240 million (2.9 percent). To compensate for price changes that occurred between 1983 and 1984, the dollar volumes of net taxable sales were adjusted by appropriate components of the consumer price index--non-vehicle sales by the commodity component and vehicle sales by the vehicle component. After adjustment for price changes, vehicle sales were up 0.9 percent, non-vehicle sales were down 6.1 percent, and total sales fell 5.3 percent.

It is possible to make a simple adjustment to the 1983-1984 percent changes to approximate the annual changes if the tax base had been the same in 1983 and 1984. To account for the effect of the elimination of food sales on total sales, 9.4 percentage points could be added to the dollar volume percent changes in Table 2, and 8.9 points could be added to the price-adjusted percent changes. The adjustments imply that with similar tax bases, total sales may have grown 8.1 percent in current dollar terms, or they might have increased 3.6 percent on a price-adjusted basis.

In a like manner, the non-vehicle changes in Table 1 could be adjusted by adding 10.4 percentage points to the dollar volume percent changes and 10.1 points to the price-adjusted

(continued on page 3)

Table 1
Net Taxable Retail Sales[1] in Selected Nebraska Trading Centers
1984 and 1983

Region and County	1984 ($000)	1983 ($000)	Percent Change	Price Adjusted Percent Change[2]
Alliance	56,801	63,547	-10.6	-13.5
Beatrice	74,276	85,013	-12.6	-15.5
Bellevue	121,789	111,212	9.5	5.9
Blair	38,280	41,350	-7.4	-10.5
Broken Bow	32,553	38,840	-16.2	-18.9
Chadron	29,431	33,650	-12.5	-15.4
Columbus	138,565	144,261	-3.9	-7.1
Fairbury	28,976	36,127	-19.8	-22.4
Falls City	25,917	30,442	-14.9	-17.7
Fremont	142,546	154,160	-7.5	-10.6
Grand Island	314,493	334,622	-6.0	-9.1
Hartington	14,807	17,109	-13.5	-16.3
Hastings	151,172	159,174	-5.0	-8.1
Holdrege	49,338	54,008	-8.6	-11.6
Kearney	164,892	172,917	-4.6	-7.8
Kimball	25,906	28,498	-9.1	-12.1
Lexington	53,280	60,324	-11.7	-14.6
Lincoln	1,030,845	1,031,869	-0.1	-3.4
McCook	73,824	80,306	-8.1	-11.1
Nebraska City	39,814	44,364	-10.3	-13.2
Norfolk	160,819	172,529	-6.8	-9.8
North Platte	150,685	170,433	-11.6	-14.5
O'Neill	38,106	42,732	-10.8	-13.7
Ogallala	47,969	51,377	-6.6	-9.7
Omaha	2,639,080	2,562,833	3.0	-0.4
Scottsbluff/Gering	164,565	183,212	-10.2	-13.1
Seward	33,968	37,435	-9.3	-12.2
Sidney	38,477	41,163	-6.5	-9.6
South Sioux City	37,134	37,424	-0.8	-4.0
Wayne	28,292	33,341	-15.1	-17.9
West Point	24,696	30,059	-17.8	-20.5
York	63,489	69,751	-9.0	-12.0
Total 32 Centers	6,034,785	6,154,082	-1.9	-5.2
TOTAL STATE[3]	7,950,068	8,190,373	-2.9	-6.1

[1] Excluding motor vehicle sales, and after October 1983 excluding food sales
[2] Current dollar sales adjusted (deflated) for price changes using commodity price component of the Bureau of Labor Statistics' Consumer Price Index
[3] Total state sales include some sales that cannot be allocated to cities, counties, or regions
Source: compilations by Bureau of Business Research from special tabulations provided by Nebraska Tax Commissioner

Table 2

Net Taxable Retail Sales[1] of Nebraska's Planning and Development Regions and Counties, 1984 and 1983

Region and County	1984 ($000)	1983 ($000)	Percent Change	Price Adjusted Percent Change[2]
Region 1	3,323,932	3,185,311	4.4	0.1
Douglas	3,016,795	2,883,349	4.6	0.5
Sarpy	250,906	242,120	3.6	-1.9
Washington	56,231	59,842	-6.0	-10.5
Region 2	1,181,035	1,160,529	1.8	-2.4
Lancaster	1,181,035	1,160,529	1.8	-2.4
Region 3	56,284	58,154	3.2	-7.6
Dakota	56,284	58,154	-3.2	-7.6
Region 4	170,527	186,894	-8.8	-13.1
Cass	54,217	57,936	-6.4	-11.3
Otoe	63,455	70,762	-10.3	-14.2
Saunders	52,855	58,196	-9.2	-13.7
Region 6	275,995	304,621	-9.4	-13.3
Burt	29,614	35,710	-17.1	-20.8
Cuming	46,975	55,219	-14.9	-18.6
Dodge	188,181	200,442	-6.1	-10.0
Thurston	11,225	13,250	-15.3	-19.4
Region 7	93,625	105,124	-10.9	-14.9
Johnson	16,104	18,858	-14.6	-18.5
Nemaha	28,557	30,810	-7.3	11.5
Pawnee	8,609	10,041	-14.3	-18.3
Richardson	40,355	45,415	-11.1	-14.9
Region 8	136,198	149,013	-8.6	-12.6
Butler	25,513	28,197	-9.5	-13.7
Saline	54,018	58,433	-7.6	-11.6
Seward	56,667	62,383	-9.2	-13.2
Region 9	139,478	151,384	-7.9	-11.8
Fillmore	32,576	36,547	-10.9	-14.8
Polk	22,915	24,719	-7.3	-11.6
York	83,987	90,118	-6.8	-10.6
Region 10	250,473	269,567	-7.1	-11.0
Boone	29,204	33,298	-12.3	-16.2
Colfax	32,406	40,056	-19.1	-22.7
Nance	12,581	14,049	-10.4	-14.8
Platte	176,282	182,164	-3.2	-7.2
Region 11	302,152	333,168	-9.3	-13.1
Antelope	27,289	35,065	-22.2	-25.8
Madison	205,947	219,164	-6.0	-9.8
Pierce	23,778	27,383	-13.2	-17.2
Stanton	10,592	11,393	-7.0	-12.4
Wayne	34,546	40,163	-14.0	-17.6
Region 12	441,116	467,045	-5.6	-9.4
Hall	359,831	378,383	-4.9	-8.7
Hamilton	33,945	36,190	-6.2	-10.6
Howard	20,130	22,432	-10.3	-14.5
Merrick	27,210	30,040	-9.4	-13.6
Region 13	249,949	268,823	-7.0	-10.9
Adams	178,118	185,130	-3.8	-7.7
Clay	27,739	31,159	-11.0	-15.1
Nuckolls	30,408	35,457	-14.2	-17.9
Webster	13,684	17,077	-19.9	-23.6
Region 14	171,227	196,559	-12.9	-16.6
Gage	100,320	113,832	-11.9	-15.7
Jefferson	42,288	50,074	-15.5	-19.1
Thayer	28,619	32,653	-12.4	-16.1
Region 15	238,859	251,350	-5.0	-8.9
Buffalo	214,849	222,353	-3.4	-7.3
Kearney	24,010	28,997	-17.2	-21.1
Region 16	156,268	178,625	-12.5	-16.3
Dawson	117,080	130,104	-10.0	-13.8
Frontier	8,578	10,460	-18.0	-22.3
Furnas	24,051	29,429	-18.3	-21.9
Gosper	6,559	8,632	-24.0	-27.7
Region 17	88,473	99,883	-11.4	-15.3
Franklin	12,934	16,063	-19.5	-23.4
Harlan	14,080	17,218	-18.2	-22.2
Phelps	61,459	66,602	-7.7	-11.6
Region 18	191,515	212,317	-9.8	-13.6
Hooker	3,204	3,767	-14.9	-18.7
Lincoln	182,296	201,817	-9.7	-13.4
Logan	1,965	2,077	-5.4	-11.1
McPherson	747	625	19.5	9.3
Thomas	3,303	4,031	-18.1	-21.9
Region 19	108,047	116,261	-7.1	-11.0
Arthur	1,051	1,135	-7.4	-12.8
Chase	25,908	29,096	-11.0	-14.9
Grant	3,728	3,645	2.3	-3.2
Keith	58,274	63,565	-8.3	-12.0
Perkins	19,086	18,820	1.4	-3.1
Region 20	111,811	121,279	-7.8	-11.8
Dundy	10,206	11,979	-14.8	-19.0
Hayes	1,687	2,200	-23.3	-29.3
Hitchcock	10,864	11,904	-8.7	-13.6
Red Willow	89,054	95,196	-6.5	-10.3
Region 21	91,566	96,879	-5.5	-9.7
Cheyenne	50,794	52,279	-2.8	-7.1
Deuel	9,661	11,163	-13.5	-17.7
Kimball	31,111	33,437	-7.0	-11.0
Region 22	241,066	263,182	-8.4	-12.3
Banner	1,256	1,438	-12.7	-20.8
Garden	9,039	9,834	-8.1	-12.7
Morrill	24,783	27,769	-10.8	-14.8
Scotts Bluff	205,988	224,141	-8.1	-11.9
Region 23	149,554	164,975	-9.3	-13.3
Box Butte	71,463	76,586	-6.7	-10.8
Dawes	39,991	44,013	-9.1	-13.0
Sheridan	34,736	40,916	-15.1	-18.7
Sioux	3,364	3,460	-2.8	-9.3
Region 24	128,175	147,933	-13.4	-17.1
Boyd	7,495	9,334	-19.7	-23.3
Brown	19,825	22,679	-12.6	-16.2
Cherry	30,140	35,057	-14.0	-17.7
Holt	61,082	69,349	-11.9	-15.7
Keya Paha	2,168	2,441	-11.2	-16.3
Rock	7,485	9,073	-17.5	-21.4
Region 25	79,241	94,361	-16.0	-19.8
Cedar	3,3034	39,985	-17.4	-21.0
Dixon	12,987	15,006	-13.5	-18.0
Knox	33,220	39,370	-15.6	-19.3
Region 26	111,044	129,866	-14.5	-18.2
Blaine	1,506	1,704	-11.6	-16.6
Custer	53,243	62,473	-14.8	-18.4
Garfield	10,228	11,840	-13.6	-17.2
Greeley	8,805	10,890	-19.1	-22.9
Loup	1,201	1,551	-22.6	-27.7
Sherman	9,407	11,547	-18.5	-22.4
Valley	24,835	27,717	-10.4	-14.0
Wheeler	1,819	2,144	-15.2	-21.2
STATE TOTAL[3]	9,073,422	9,189,408	-1.3	-5.3

[1] Motor vehicle sales are recorded as in counties in which the vehicles were first registered, regardless of point of sale.

[2] Current dollar sales adjusted (deflated) for price changes using commodity price component of the Bureau of Labor Statistics' Consumer Price Index

[3] Total state sales include some sales that cannot be allocated to cities, counties, or regions

Source: compilations by Bureau of Business Research from special tabulations provided by Nebraska Tax Commissioner

(continued from page 1)

percent changes. From this, it can be seen that the change in the state's non-vehicle sales would increase from a 2.9 percent loss to a 7.5 percent gain; on a price-adjusted basis, a 6.1 percent loss would become 4.0 percent growth. It is important to remember that the above adjustments are for illustration only, as there is no way of determining the actual adjustments necessary. For the remainder of the article, however, comparisons will be made for those counties with total sales declines of 9.4 percent or less and those with losses exceeding 9.4 percent.

The geographic distribution of net taxable retail sales by planning region and county, with respective changes that occurred between 1983 and 1984, can be found in Table 2. Again, it should be noted that the 1983 and 1984 sales data have not been adjusted to account for the loss of food sales.

Of the twenty-five state planning regions, only two recorded gains in the dollar volume of sales in 1984. These regions were Region 1, +4.4 percent, and Region 2, +1.8 percent. An additional fourteen areas reported losses in sales of less than 9.4 percent. On a price-adjusted basis, only Region 1 experienced an increase in sales.

Map 1 shows that eight regions recorded losses in net taxable sales greater than 9.4 percent. These regions generally were located in the central third of the state, with the exceptions of Regions 7 and 14 in the southeast and Region 25 in the northeast. The state's largest drop in sales occurred in Region 25, with a decline of 16.0 percent.

Table 2 and Map 2 illustrate how Nebraska's counties fared between 1983 and 1984. Six of the state's ninety-three counties recorded net taxable sales in 1984 above those of 1983, with an additional thirty-one with losses of less than 9.4 percent. The growing counties were concentrated in the metropolitan areas of eastern Nebraska and in some of the more sparsely populated counties in western Nebraska. Counties with the increases in sales were McPherson, +19.5 percent; Douglas, +4.6 percent; Sarpy, +3.6 percent; Grant, +2.3 percent; Lancaster, +1.8 percent; and Perkins, +1.4 percent.

Of the counties with losses in taxable sales in 1984, twenty-three had losses of more than 15 percent, including four with losses over 20 percent. These counties generally were located throughout the central portion of the state, with concentrations in the northeast and south central areas. The largest declines were Gosper, -24.0 percent; Hayes, -23.3 percent; Loup, -22.6 percent; and Antelope, -22.2 percent.

Data on retail sales for thirty-two Nebraska cities are found in Table 1 on page 1. These sales exclude motor vehicle sales, which are counted at the county in which the vehicle is registered. The state total in Table 1, therefore, is for non-vehicle sales and differs from the total in Table 2, which is for both motor vehicle and non-vehicle sales.

Statewide, non-vehicle sales fell 2.9 percent in 1984, but for the aggregate of the thirty-two cities, the loss was 1.9 percent. Again, it should be remembered that the reason for this decline is the diminished sales tax base in 1984.

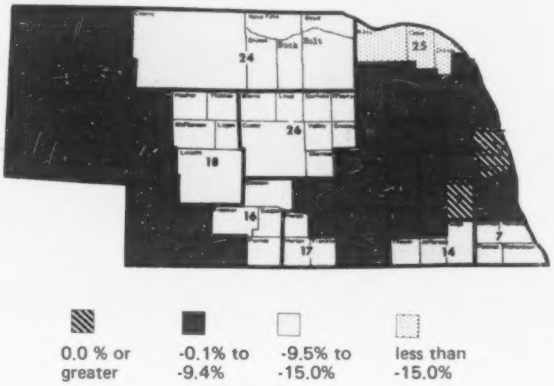
Of the thirty-two communities listed in Table 1, only two reported increases in their dollar volume of sales in 1984. These cities were Bellevue, +9.5 percent, and Omaha, +3.0 percent. Eighteen of the remaining cities reported losses of less than 10.4 percent (the estimated impact of the loss of food sales from the tax base). Some of these cities are Lincoln, -0.1 percent; South Sioux City, -0.8 percent; Columbus, -3.9 percent; Kearney, -4.6 percent; and Hastings, -5.0 percent.

Twelve of the thirty-two cities in Table 1 reported losses greater than 10.4 percent. Those with the largest losses were Fairbury, -19.8 percent; West Point, -17.8 percent; Broken Bow, -16.2 percent; and Wayne, -15.1 percent.

In summary, it appears that without the change in the tax base, Nebraska's net taxable retail sales would have shown a moderate increase of approximately 3 to 4 percent in real terms in 1984 compared to 1983. As it stands, however, the actual change will never be known. The strongest areas of sales were the metropolitan counties and larger cities of the state. In addition, concentrations of relative strength could be found in east-central and northwest Nebraska. The weakest counties were concentrated in the central and northeastern part of the state. Looking to 1985, it appears that sales are running ahead of their 1984 pace and should finish the year with moderate growth. Because the tax bases should be the same in 1984 and 1985, more accurate year-to-year comparisons can be made.

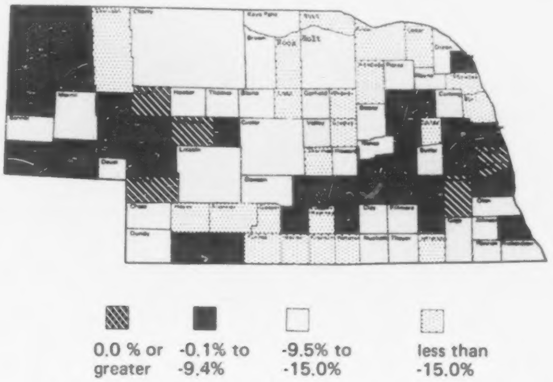
(continued on page 6)

Map 1
Percentage Change in Net Taxable Retail Sales by Region, 1983-1984



State -1.3%

Map 2
Percentage Change in Net Taxable Retail Sales by County, 1983-1984



State -1.3%

Review and Outlook

Nebraska's nonagriculture economy edged up 0.5 percent March-April 1985. Once again, cash farm marketings were not available from the United States Department of Agriculture. Prices received by Nebraska farmers and ranchers were disheartening--they declined 3.5 percent on a month-to-month basis in April 1985 to a level 11.5 percent below one year ago.

Construction led the nonagriculture segment of Nebraska's economy. This component of the Bureau of Business Research's index increased 5.6 percent on a monthly basis. Manufacturing, distributive trade (which includes wholesale and retail trade and services), and government recorded small monthly changes.

Charles Bare, Research Associate at the Bureau of Business Research, has designed a series of leading economic indicators for Nebraska. The most recent reading of this index showed an upturn in economic activity. The chart below shows a peak late in 1985 followed by a slow downward drift. If the index continues to improve over the next two months or if no new low is established over the next three months, this could indicate an upswing in the Nebraska economy in the third and fourth quarters which could carry into the first half of 1986.

The national economy is expected to show renewed vigor during the last half of 1985 and the first half of 1986, so it

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes--see Table 5, page 5.

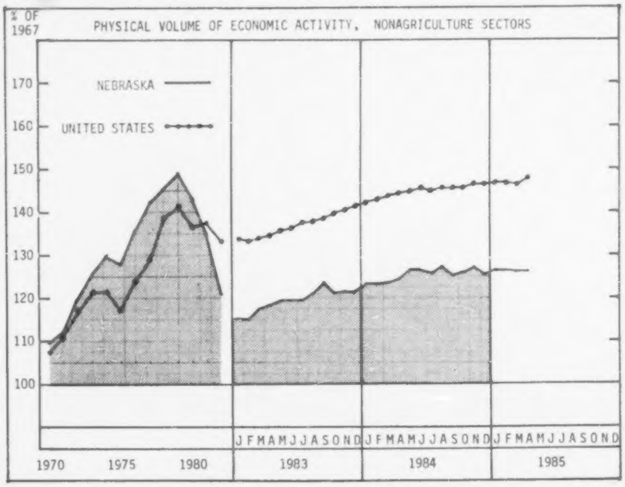
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

April 1985	Current Month as Percent of Same Month Previous Year		1985 to date as percent of 1984 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	na	na	na	na
Agricultural	na	na	na	na
Nonagricultural	105.1	105.8	106.0	106.2
Construction	91.4	105.5	97.0	107.3
Manufacturing	100.7	100.7	102.8	102.2
Distributive	105.4	107.3	105.8	107.4
Government	114.8	107.6	114.6	106.8
Physical Volume	na	na	na	na
Agricultural	na	na	na	na
Nonagricultural	101.7	102.4	102.4	102.8
Construction	88.6	102.3	93.2	103.1
Manufacturing	101.2	100.4	102.7	101.6
Distributive	101.7	103.5	102.0	103.6
Government	105.6	101.3	105.7	101.3

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	na	na
Agricultural	na	na
Nonagricultural	377.0	447.2
Construction	293.9	433.7
Manufacturing	370.1	326.7
Distributive	382.2	513.5
Government	416.5	455.9
Physical Volume	na	na
Agricultural	na	na
Nonagricultural	126.7	147.6
Construction	82.1	121.1
Manufacturing	148.9	128.2
Distributive	119.4	160.4
Government	151.6	149.8



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

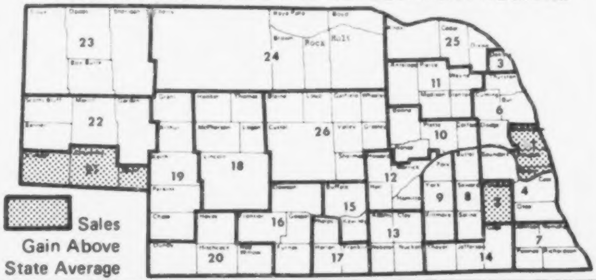
Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	April 1985 as percent of April 1984	April 1985 as percent of April 1984	1985 to date as percent of 1984 to date
The State	101.5	99.9	103.3
1 Omaha	109.7	107.2	110.7
Bellevue	114.2		
Blair	99.7		
2 Lincoln	106.5	105.2	106.2
3 So. Sioux City	96.7	92.9	102.8
4 Nebraska City	99.2	93.9	93.7
6 Fremont	98.5	91.7	96.8
West Point	81.0		
7 Falls City	99.9	93.0	94.0
8 Seward	91.7	89.7	89.5
9 York	102.3	96.2	94.9
10 Columbus	92.4	87.0	94.9
11 Norfolk	92.6	90.5	98.6
Wayne	79.7		
12 Grand Island	97.4	95.1	100.0
13 Hastings	95.9	89.6	96.3
14 Beatrice	107.1	99.7	93.9
Fairbury	102.8		
15 Kearney	96.5	93.2	94.4
16 Lexington	98.6	90.7	94.2
17 Holdrege	92.1	91.4	92.2
18 North Platte	97.8	94.7	92.7
19 Ogallala	95.5	96.0	89.7
20 McCook	95.6	90.3	95.4
21 Sidney	100.8	100.6	103.1
Kimball	104.4		
22 Scottsbluff/Gering	97.8	95.7	98.3
23 Alliance	100.4	97.6	99.1
Chadron	93.6		
24 O'Neill	96.9	89.6	92.9
25 Hartington	86.3	90.0	93.5
26 Broken Bow	98.4	97.5	94.4

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1985 YEAR TO DATE AS PERCENT OF 1984 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(continued from page 4)

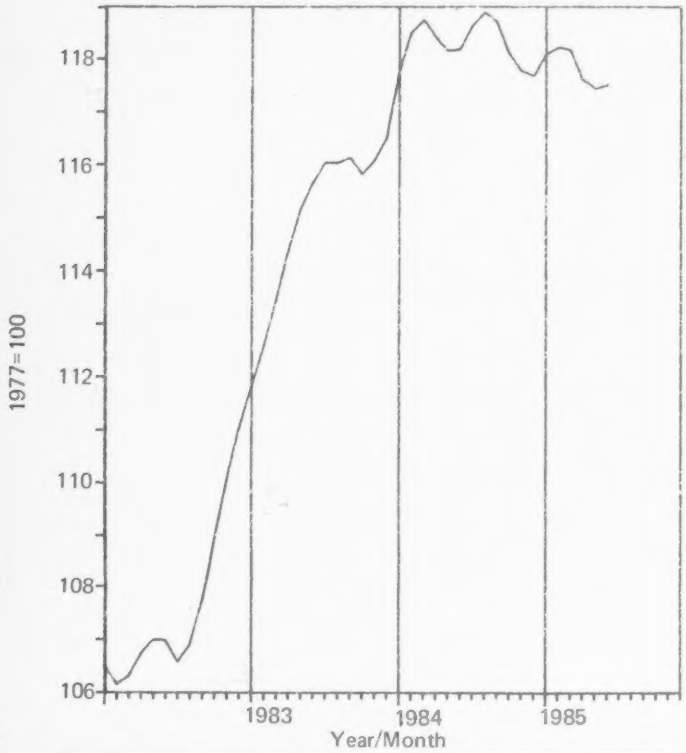
would not be outside the realm of likely events if the state economy were also to improve. Lower interest rates are now beginning to stimulate the economy and are expected to boost the economy over the next few quarters.

Retail sales in Nebraska slumped in April. Total retail sales were down 2.6 percent on a price adjusted basis compared with one year earlier. Motor vehicle sales dropped 13.5 percent on a price adjusted basis, while nonmotor vehicle sales fell 0.8 percent on a price adjusted basis. The April 1985 sales changes should be viewed in the context of exceptionally strong April 1984 motor vehicle sales.

Chadron led all Nebraska cities with a large increase in its city business index. Chadron's improvement reflects a rise in building activity. Fairbury ranked second, and Beatrice third. Omaha followed Beatrice with a 3.6 percent gain in its city business index. Both Omaha and Lincoln have consistently outperformed the state's economy and continue to lead in economic growth.

DONALD E. PURSELL

Nebraska Composite Leading Index

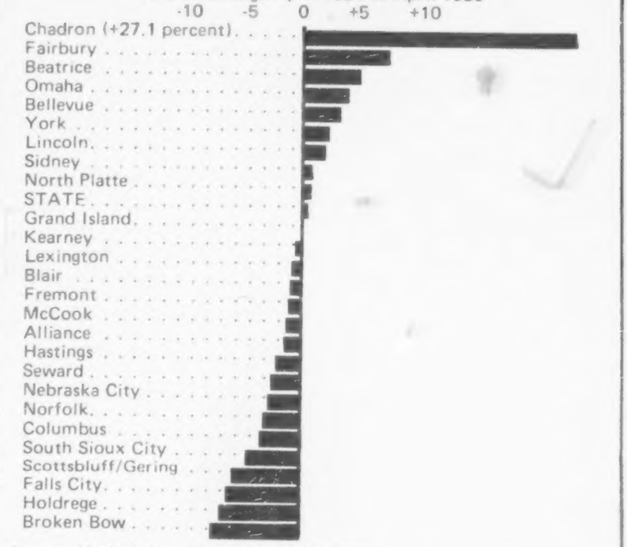


5. PRICE INDEXES

April 1985	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	320.1	103.7	103.7
Commodity component	286.8	102.4	102.2
Wholesale Prices	309.3	99.4	99.8
Agricultural Prices			
United States	238.0	89.8	92.3
Nebraska	230.0	88.5	92.6

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

CITY BUSINESS INDEX
Percent Change April 1984 to April 1985



Source: Table 3 (page 4) and Table 4 below.

4. April 1985 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	102.2	92.7	88.0
Alliance	101.8	79.2	95.3
Beatrice	100.1	172.3	78.2
Bellevue	101.5	54.4	76.7
Blair	101.5	100.7	90.4*
Broken Bow	102.6	17.3	87.0
Chadron	114.6	15,957.6	82.9
Columbus	99.8	94.0	78.4
Fairbury	101.4	408.5	88.6
Falls City	104.3	15.9	83.7
Fremont	103.6	88.9	114.7*
Grand Island	101.1	142.9	84.1
Hastings	100.7	107.4	na
Holdrege	102.8	33.8	78.9
Kearney	105.2	99.5	79.2
Lexington	103.5	93.6	90.1
Lincoln	102.0	88.8	86.9
McCook	99.6	154.7	79.8
Nebraska City	103.2	48.2	62.7
Norfolk	103.7	66.0	89.7
North Platte	105.5	101.5	79.4
Omaha	101.5	94.6	89.5
Scottsbluff/Gering	101.1	26.8	141.9
Seward	103.1	110.4	77.3
Sidney	101.3	115.5	84.3
So. Sioux City	98.3	52.7	88.7*
York	102.4	128.2	77.6

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

HOUSING UNITS AUTHORIZED

The fact that residential construction has experienced hard times in recent years should surprise no one. What is not so well known is the extent of the decline and the extent to which construction has rebounded in the last year or so. Listed in the table below are the numbers of new privately owned housing units authorized by building permits as released by the U.S. Bureau of the Census. Data are presented for the state and for selected areas. Although these data do not translate directly into private housing units built in any given year, they are likely to be close estimates. Caution should be used when interpreting percentage changes where the total number of permits issued is small; small absolute changes may result in large percentage changes.

The data presented are for 1977 (the most recent peak at the state level) and 1982-1984. From the table, it can be seen that the 6,053 units authorized in Nebraska represent a decline of 46.5 percent from 1977, but an increase of 67.5 percent from the low of 1982 and a 10.8 percent increase from 1983. Despite the general decline in the number of authorized units between 1977 and 1984, Papillion was up 262.8 percent, unincorporated Sarpy County added 29.5 percent, McCook was unchanged, and Omaha dropped only 1.2 percent.

Comparing 1982 to 1984, the strongest areas in terms of percentage change were Lincoln, Nebraska City, Fremont, Norfolk, North Platte, and Plattsmouth. The weakest areas over the same period were LaVista, Beatrice, Chadron, unincorporated Hall County, Scottsbluff, Grand Island and Lexington.

JEROME A. DEICHERT

NUMBER OF NEW PRIVATELY OWNED HOUSING UNITS AUTHORIZED BY BUILDING PERMITS IN PERMIT-ISSUING PLACES

					Percentage Change		
	1977	1982	1983	1984	1977 to 1984	1982 to 1984	1983 to 1984
Adams County (unincorporated)*	194	42	41	34†	-82.5	-19.0	-17.1
Alliance	288	5	12	5	-98.3	0.0	-58.3
Beatrice	134	67	41	9	-93.3	-86.6	-78.0
Bellevue	428	221	328	247	-42.3	11.8	-24.7
Blair	59	24	19	27	-54.2	12.5	42.1
Chadron	26	22	6	4†	-84.6	-81.8	-33.3
Columbus	329	68	87	79	-76.0	16.2	-9.2
Fremont	202	12	17	32†	-84.2	166.7	88.2
Gering	149	13	13	10	-93.3	-23.1	-23.1
Grand Island	461	152	91	61	-86.8	-59.9	-33.0
Hall County (unincorporated)	133	45	46	9	-93.2	-80.0	-80.4
Kearney	317	162	153	187	-41.0	15.4	22.2
La Vista	154	62	32	5	-96.8	-91.9	-84.4
Lexington	181	23	24	11	-93.9	-52.2	-54.2
Lincoln	2,343	234	1,000	1,279	-45.4	446.6	27.9
McCook	38	52	75	38	0.0	-26.9	-49.3
Nebraska City	61	4	4	20	-67.2	400.0	400.0
Norfolk	299	37	80	86	-71.2	132.4	7.5
North Platte	223	14	28	29	-87.0	107.1	3.6
Ogallala	56	25	37	21	-62.5	-16.0	-43.2
Omaha	2,151	1,103	1,776	2,125	-1.2	92.7	19.7
Papillion	78	174	295	283	262.8	62.6	-4.1
Plattsmouth	48	11	34	22	-54.2	100.0	-35.3
Sarpy County (unincorporated)	224	215	299	290	29.5	34.9	-3.0
Scottsbluff	78	39	31	14	-82.1	-64.1	-54.8
South Sioux City	182	14	19	26	-85.7	85.7	36.8
NEBRASKA	11,322	3,614	5,465	6,053	-46.5	67.5	10.8

*Includes Hastings

†Eleven months

Source: U.S. Department of Commerce, Bureau of the Census, *Housing Units Authorized by Building Permits and Public Contracts: Annual 1980-1983* and *December 1984*, Construction Reports, C40 series

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BUSINESS IN NEBRASKA

September 1985
Vol. 41 No. 492

Prepared by the Bureau of Business Research, 200 College of Business Administration, University of Nebraska, Lincoln, NE 68588-0406, 402/472-2334

PERSONAL INCOME IN THE PLAINS STATES

Nebraska's personal income was $20,175 million in the first quarter of 1985 according to the Bureau of Economic Analysis. Compared with one year ago, Nebraska personal income is up 1.7 percent.

Wages and salaries were a very important factor in boosting income above year ago levels. Nebraskans' wages and salaries rose 7.3 percent (Table 1) in the first quarter of 1985 compared to a year ago, well above the estimated 4.0 percent increase in the Consumer Price Index during the same interval. Nebraska's nonagriculture economy is expanding at a rate well above the national average, but the agriculture component pulls Nebraska below the national average. Nonfarm personal income was 8.8 percent above year ago levels.

Personal income data provided by the Bureau of Economic Analysis of the U.S. Department of Commerce has been revised through the first quarter of 1978. Major revisions were made in farm proprietors' income, which will affect Nebraska more than most states. The year's quarters are indicated by the number following the colon. For example, 1978:4 refers to the fourth quarter of 1978.

REGIONAL COMPARISON

Data in Table 2 provide a regional overview of personal income for the fourth quarters of 1978, 1982, 1984 and the first quarter of 1985. The fourth quarter was selected for comparability. The years 1978, 1982, and 1984 were chosen to illustrate the effects of the recession and the recovery from that recession. Data for 1985 are added as they are the most recent information available. (See Figure 1)

The recession of 1980-1982 hit the Great Lakes the hardest. The region lost almost two percentage points in its share of United States personal income. In the fourth quarter of 1978, the Great Lakes personal income share of total U.S. personal income was 19.6 percent. Four years later it was 17.6 percent. The Mideast and the Plains regions also suffered declines in their shares of United States personal income, but the decreases were nowhere near the magnitude of that recorded by the Great Lakes.

Regions gaining in personal income were the South, West, and New England. The Southwest achieved a 1.0 percent jump in its share of personal income over the interval fourth quarter of 1978 compared to the same quarter of 1982.

The same regions which fared well during the recession have led during the recovery interval--that is, the fourth quarter of 1982 compared with the fourth quarter of 1984. New England has led all areas with a 20.7 percent increase in the recovery period. The Southeast experienced an 18.5 percent gain in its income and the Far West recorded a 17.4 percent rise in income. The Southwest and the Rocky Mountain area slipped below the average United States gain in the recovery phase and lost in terms of relative share of United States personal income. Declining energy

(continued on page 3)

Table 1
Personal Income and Wages and Salaries
Nebraska and United States
(in millions of $)

Nebraska Personal Income	Total Income	Annual Change	Nonfarm Income	Annual Change	Wages and Salaries	Annual Change
1978:4	12,622	14.23%	11,396	11.27%	7,215	12.88%
1982:4	17,639	3.78	16,701	6.82	9,569	4.33
1984:4	19,929	5.38	19,191	9.22	10,659	7.38
1985:1	20,175	1.67	19,530	8.80	10,784	7.25
United States Personal Income	**Total Income**	**Annual Change**	**Nonfarm Income**	**Annual Change**	**Wages and Salaries**	**Annual Change**
1978:4	1,814,273	13.17%	1,777,169	12.99%	1,155,448	13.13%
1982:4	2,629,632	5.29	2,593,564	5.51	1,579,384	3.49
1984:4	3,082,902	9.05	3,043,850	8.80	1,837,399	7.72
1985:1	3,129,096	7.66	3,095,905	8.02	1,872,297	7.26

Source: U.S. Department of Commerce, Bureau of Economic Analysis and *Survey of Current Business*, April 1985.

FIGURE 1

Percentage Change

1978:4 to 1985:1

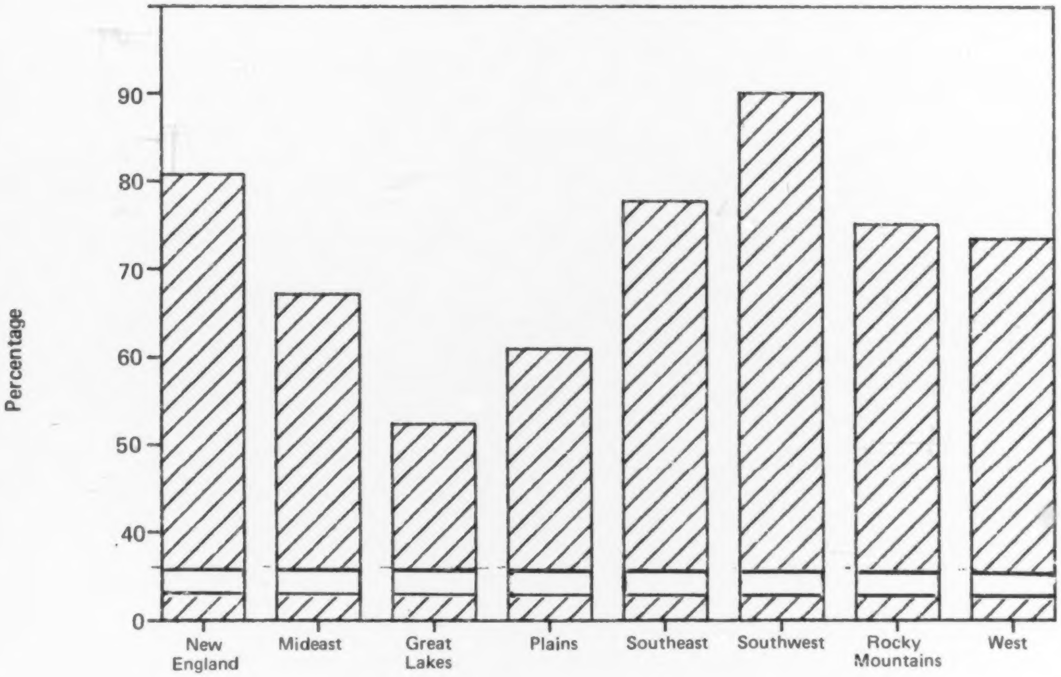


FIGURE 2

Share of U.S. Personal Income

(seasonally adjusted at annual rates)

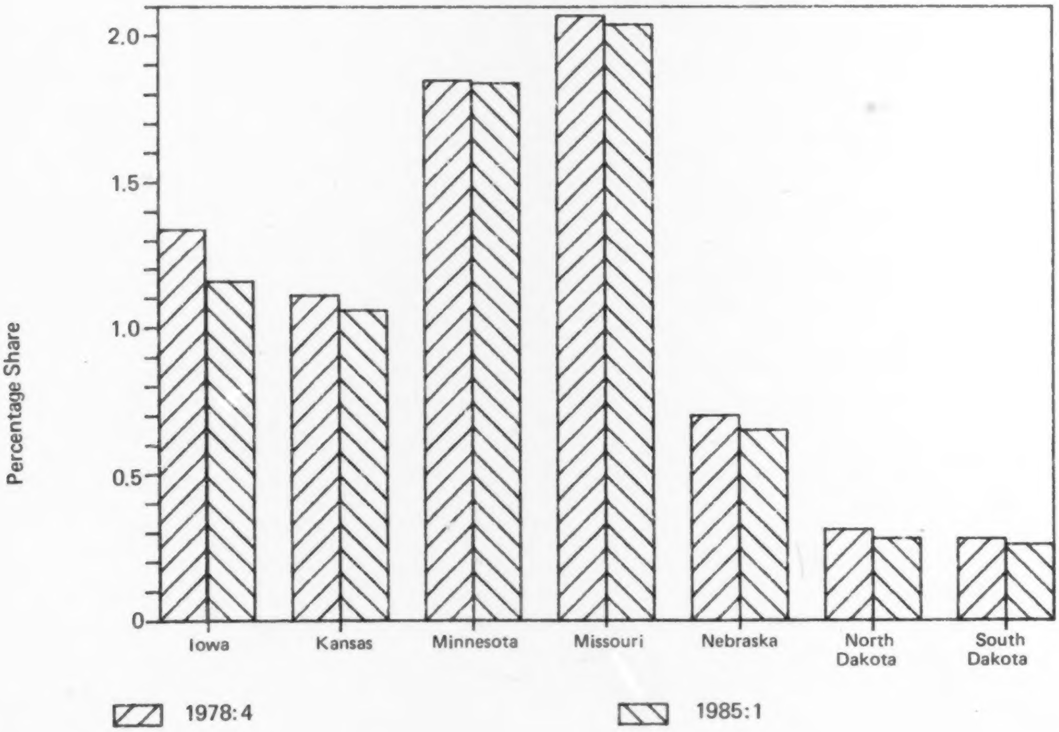


TABLE 2

Personal Income in Millions of Current Dollars
(seasonally adjusted at annual rates)

	Quarterly Personal Income				Percentage Share of U.S.				Percentage Change 4th Quarter-4th Quarter		
	1978:4	1982:4	1984:4	1985:1	1978:4	1982:4	1984:4	1985:1	1978-82	1982-84	1978-84
UNITED STATES	1,814,273	2,629,632	3,082,902	3,129,096	100.00	100.00	100.00	100.00	44.94	17.24	69.92
New England	103,102	154,512	186,448	190,234	5.68	5.88	6.05	6.08	49.86	20.67	80.84
Mideast	364,389	523,145	609,399	619,614	20.08	19.89	19.77	19.80	43.57	16.49	67.24
Great Lakes	355,395	462,644	541,915	548,930	19.59	17.59	17.58	17.54	30.18	17.13	52.48
Plains	138,533	193,120	223,056	224,422	7.64	7.34	7.24	7.17	39.40	15.50	61.01
Southeast	358,381	537,838	637,164	647,416	19.75	20.45	20.67	20.69	50.07	18.47	77.79
Southwest	156,498	256,105	297,460	301,767	8.63	9.74	9.65	9.64	63.65	16.15	90.07
Rocky Mountains	49,383	75,528	86,527	87,861	2.72	2.87	2.81	2.81	52.94	14.56	75.22
Far West	288,590	426,741	500,932	508,853	15.91	16.23	16.25	16.26	47.87	17.39	73.58
PLAINS STATES											
Iowa	24,237	31,593	35,660	35,776	1.34	1.20	1.16	1.14	30.35	12.87	47.13
Kansas	20,055	28,985	32,666	32,683	1.11	1.10	1.06	1.04	44.53	12.70	62.88
Minnesota	33,542	47,669	56,057	56,631	1.85	1.81	1.82	1.81	42.12	17.60	67.12
Missouri	37,510	52,886	62,256	62,774	2.07	2.01	2.02	2.01	40.99	17.72	65.97
Nebraska	12,622	17,639	19,929	20,175	0.70	0.67	0.65	0.64	39.75	12.98	57.89
North Dakota	5,563	7,572	8,500	8,484	0.31	0.29	0.28	0.27	36.11	12.26	52.80
South Dakota	5,004	6,776	7,988	7,899	0.28	0.26	0.26	0.25	35.41	17.89	59.63

Source: U.S. Department of Commerce, Bureau of Economic Analysis and *Survey of Current Business*, April 1985.

(continued from page 1)

prices undoubtedly contributed to the slippage for these two regions.

The Plains region recorded a meager 15.5 percent increase in income in this recovery period, about two percentage points less than that for the nation as a whole. Only the Rocky Mountain region fared more poorly than the Plains during this recovery interval of fourth quarter of 1982 through fourth quarter of 1984.

PLAINS REGION

Over the interval fourth quarter 1978 through the fourth quarter 1982, the Plains recorded a 39.4 percent gain in personal income--that amount is about 90.0 percent of the increase registered in the United States. The only area to perform less favorably than the Plains was the Great Lakes. Kansas, Minnesota, Missouri, and Nebraska recorded increases in personal income above that for the region over the interval fourth quarter of 1978 through the same quarter of 1982. Nebraska's gain was a scant three-tenths of one percent above the average for the Plains. (See Figure 2.)

In the recovery period, however, Nebraska has lagged the Plains and the United States rather dramatically. From the fourth quarter of 1982 through the fourth quarter of 1984, the Plains region experienced a 15.5 percent increase in personal income, which is far less than the 17.2 percent experienced by the country as a whole. Nebraska recorded a 13.0 percent gain in personal income over the interval. Minnesota, South Dakota, and Missouri recorded growth above the national average, but all other states in the area, including Iowa, Kansas, Nebraska, and North Dakota, were below the U.S. average during the period specified.

The Plains States in the first quarter of 1985 constituted 7.2 percent of total United States personal income, compared to 7.6 percent six years ago. This decline of four-tenths of one percentage point may not seem like much when expressed in percentage terms, but in dollars it amounts to $14.6 billion--a more impressive figure. In other words, if the Plains States had maintained 7.64 percent of total U.S. personal income, first quarter 1985 total personal income for the area would have been $239 billion. The Bureau of Economic Analysis, however, reports that Plains personal income was only $224.4 billion.

Nebraska lost approximately $1.7 billion in this regional shift in income. If Nebraska had the same share of United States personal income in the first quarter of 1985 as it had in the fourth quarter of 1978, personal income would have been $21.90 billion, as compared to the actual reported amount of $20.175 billion. Of course, the United States economy is dynamic--shifts can be expected in income and employment amoung industries, occupations, and regions. If the residents of the Plains or other areas feel that they are not getting their due share of personal income, it is incumbent upon the inhabitants to correct the difference by promoting economic development and encouraging diversification.

SUMMARY

Nebraska's personal income and wages and salaries have grown at about four-fifths of national levels. Nebraska has managed to keep pace with the nation only during the past two quarters, the fourth quarter of 1984 and the first quarter of 1985.

DONALD E. PURSELL

Review and Outlook

Nebraska's nonagriculture sector of the economy recorded a solid gain in May as measured by the Bureau of Business Research's net physical volume index. The index was up 1.3 percent on a month-to-month basis. Cash farm marketings were not available--this series is expected to be ready for publication soon

Construction, manufacturing, and trade recorded increases on a month-to-month basis. Construction registered a sharp 9.7 percent gain, which reflects seasonal trends and lower interest rates.

The manufacturing component of the index recorded a 2.6 percent jump on a monthly basis. Although the increase in this component of the index indicates more activity in the manufacturing sector, output from Nebraska's manufacturing sector in May 1985 was below that of May 1981. The distributive trade component of the Bureau of Business Research's net physical volume index grew 0.6 percent from month earlier levels.

The net physical volume index prepared by the Bureau of Business Research measures the real output of goods and services. When the index increases, it indicates that output has risen--when the index falls, it means output has decreased. Income and employment may or may not follow the net physical volume index. An increase in output, for instance, may be the result of a gain in productivity, with no change in income or the number of persons employed. Likewise, a drop in the net

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

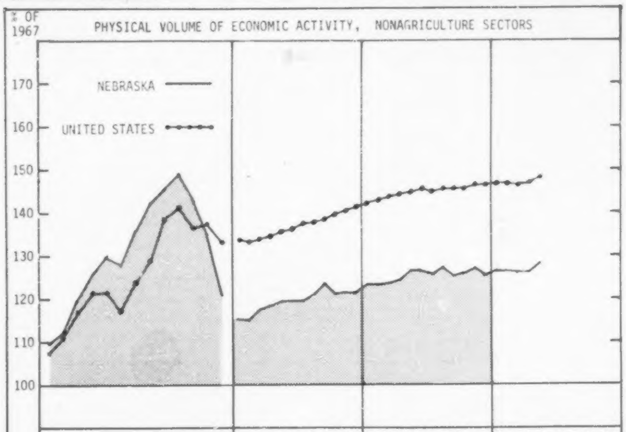
ECONOMIC INDICATORS: NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

May 1985	Current Month as Percent of Same Month Previous Year		1985 to date as percent of 1984 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	104.9	105.7	105.8	106.1
Construction	92.3	107.6	95.9	107.4
Manufacturing	101.1	100.3	102.5	101.8
Distributive	105.1	107.4	105.6	107.4
Government	114.3	106.7	114.6	106.8
Physical Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	101.4	102.4	102.2	102.7
Construction	90.2	105.2	92.5	103.5
Manufacturing	101.5	99.9	102.5	101.2
Distributive	101.3	103.5	101.9	103.6
Government	105.0	101.6	105.6	101.5

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	382.8	448.6
Construction	319.6	453.4
Manufacturing	380.2	325.8
Distributive	386.0	515.3
Government	417.6	454.2
Physical Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	128.3	147.8
Construction	90.0	127.7
Manufacturing	152.8	127.4
Distributive	120.1	160.4
Government	151.3	150.6



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

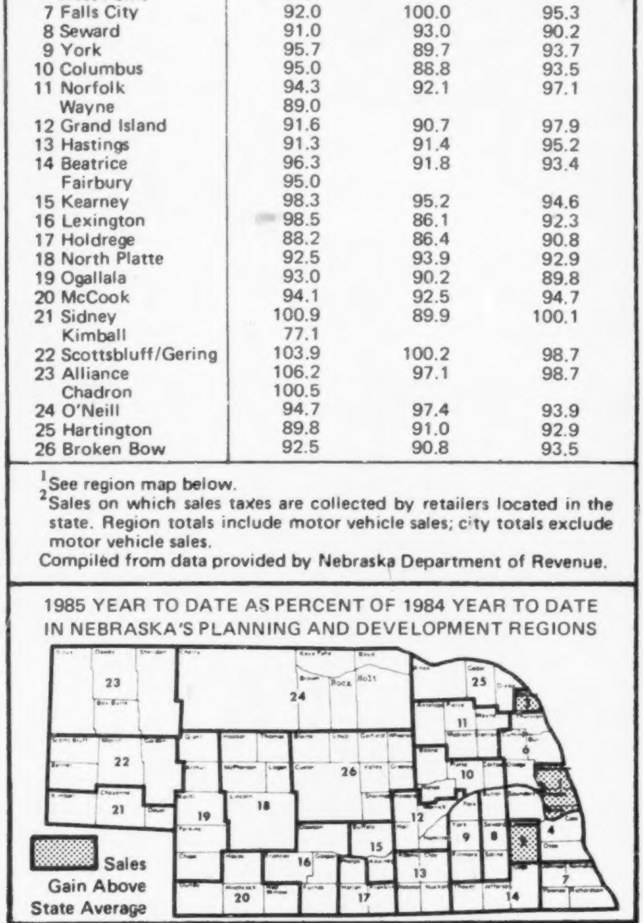
Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	May 1985 as percent of May 1984	May 1985 as percent of May 1984	1985 to date as percent of 1984 to date
The State	97.2	97.2	101.9
1 Omaha	101.7	101.5	108.6
Believue	115.4		
Blair	102.1		
2 Lincoln	101.4	102.1	105.3
3 So. Sioux City	104.2	99.0	101.9
4 Nebraska City	94.9	98.1	94.7
6 Fremont	99.7	92.5	95.8
West Point	91.7		
7 Falls City	92.0	100.0	95.3
8 Seward	91.0	93.0	90.2
9 York	95.7	89.7	93.7
10 Columbus	95.0	88.8	93.5
11 Norfolk	94.3	92.1	97.1
Wayne	89.0		
12 Grand Island	91.6	90.7	97.9
13 Hastings	91.3	91.4	95.2
14 Beatrice	96.3	91.8	93.4
Fairbury	95.0		
15 Kearney	98.3	95.2	94.6
16 Lexington	98.5	86.1	92.3
17 Holdrege	88.2	86.4	90.8
18 North Platte	92.5	93.9	92.9
19 Ogallala	93.0	90.2	89.8
20 McCook	94.1	92.5	94.7
21 Sidney	100.9	89.9	100.1
Kimball	77.1		
22 Scottsbluff/Gering	103.9	100.2	98.7
23 Alliance	106.2	97.1	98.7
Chadron	100.5		
24 O'Neill	94.7	97.4	93.9
25 Hartington	89.8	91.0	92.9
26 Broken Bow	92.5	90.8	93.5

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1985 YEAR TO DATE AS PERCENT OF 1984 YEAR TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(continued from page 4)

physical volume index does not mean that income or employment has decreased. Output may have declined because of a fall in productivity due to some disruption in production. Of course, if output declines (or increases) for several months, it is likely that income and employment will also decline (or increase).

While output expanded in the Nebraska economy in May 1985 compared with May 1984, retail sales sagged. Total retail sales were down 2.8 percent on a dollar volume basis. When adjusted for price changes, total sales contracted 5.1 percent.

Motor vehicle sales fell 2.9 percent on a dollar volume basis or 5.6 percent when adjusted for price changes. Nonmotor vehicle sales dropped 2.8 percent on a dollar volume basis or 5.0 percent when adjusted for price changes.

Among Nebraska's cities, Chadron's city business index tops the list this month. Construction activity has boosted Chadron during the past few months. Bellevue and Fairbury ranked second and third among Nebraska communities. Omaha and Lincoln were above the state average, but Omaha's indicators slipped into negative territory.

Nebraska's series of leading economic indicators, developed by Charles Bare of the Bureau of Business Research, moved up slightly for the second consecutive month. At the national level, the series of leading economic indicators has increased for two consecutive months. Second quarter gross national product rose a disappointing 2.0 percent, only slightly changed from the first quarter of 1985.

In the coming months the national economy is expected to expand at about 3.0 to 4.0 percent in real terms. This will carry into the urban portions of Nebraska as employment and income gains. The nonmetropolitan portions of the state will show little change in economic activity. Cattle prices may improve during the last half of 1985, but grain prices are expected to stagnate. Grain producers are more likely to receive a boost in income in the form of guarantees or subsidies than they are from an increase in export business. Despite a 30 to 40 percent decline in the value of the U.S. dollar, American grains are still priced well above world market levels, which will continue to impede grain exports. Nonmetropolitan Nebraska remains more dependent upon agriculture than the urban areas, so growth is likely to be very limited in the coming months.

The dichotomy in Nebraska's economy continues--it is illustrated by the fact that Nebraska ranked 14th out of the 50 states in wage and salary gains during the first quarter of 1985. Most of this increase is attributed to gains in income and employment in the metro areas.

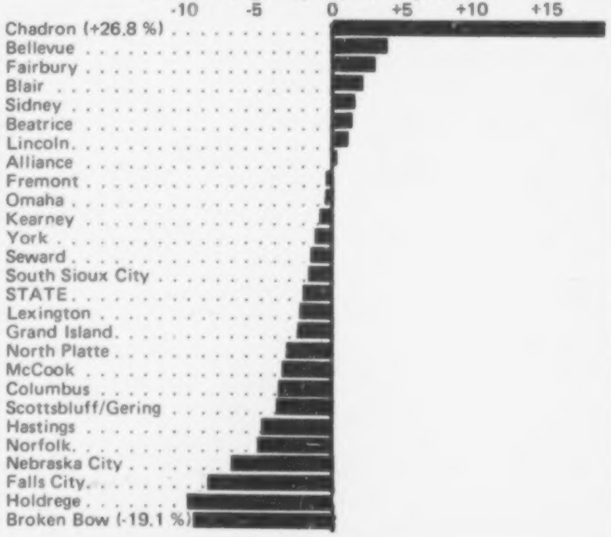
DONALD E. PURSELL

5. PRICE INDEXES

May 1985	Index (1967 = 100)	Percent of Same Month Last Year	Year to Date as Percent of Same Period Last Year*
Consumer Prices	321.3	103.7	103.7
Commodity component	287.0	102.4	102.3
Wholesale Prices	309.9	99.5	99.7
Agricultural Prices			
United States	231.0	89.2	91.7
Nebraska	228.0	88.7	91.8

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

CITY BUSINESS INDEX
Percent Change May 1984 to May 1985



Source: Table 3 (page 4) and Table 4 below.

4. May 1985 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	101.0	93.9	87.3
Alliance	100.4	70.0	77.2
Beatrice	99.4	232.8	88.8
Bellevue	100.7	60.9	81.2
Blair	100.7	146.5	113.6*
Broken Bow	101.0	4.2	82.5
Chadron	109.8	12,425.7	77.5
Columbus	97.9	104.6	82.7
Fairbury	99.5	366.3	89.9
Falls City	103.6	28.9	90.9
Fremont	101.6	102.8	109.7*
Grand Island	101.3	135.3	86.3
Hastings	98.7	106.4	138.5
Holdrege	101.7	36.7	89.8
Kearney	103.7	82.2	86.7
Lexington	100.5	82.4	75.9
Lincoln	101.8	108.4	96.6
McCook	99.7	105.4	80.7
Nebraska City	101.2	39.1	83.3
Norfolk	101.5	55.0	90.4
North Platte	101.6	106.9	78.9
Omaha	100.7	91.0	85.4
Scottsbluff/Gering	101.0	32.3	82.0
Seward	102.0	166.0	82.6
Sidney	101.1	142.0	91.0
So. Sioux City	98.5	65.3	100.4
York	100.8	131.1	91.5

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

1990 CENSUS CONFERENCE

A ONE DAY EVENT ON PLANNING THE BICENTENNIAL CENSUS OF POPULATION AND HOUSING
WEDNESDAY, SEPTEMBER 18, 1985
NEBRASKA CENTER FOR CONTINUING EDUCATION
33RD & HOLDREGE, LINCOLN, NEBRASKA

YOU ARE INVITED
to participate in a public meeting to discuss plans for the 1990 census with the Bureau of the Census.

The meeting is open to the public and all users and potential users of data, including:

- Government officials who use information to plan, direct, or evaluate programs such as urban or regional development, education, transportation, health, or employment.
- Business persons who use information to locate industrial plants or stores, to determine markets, or to make other decisions based on social and economic statistics.
- Community leaders interested in studying local trends, problems, or local needs.
- Scholars, researchers, and others interested in various social, economic, or housing problems.
- Private citizens, librarians, and others desiring information on the census.

1990 IS ONLY A FEW SHORT YEARS AWAY

The Census Bureau staff is currently reviewing the data needs of a wide variety of data users. Don't miss this opportunity to present your comments and offer suggestions on all phases of the census.

You may submit your suggestions in writing.

THE CENSUS BUREAU WANTS TO HEAR YOUR RECOMMENDATIONS REGARDING:

- Modifications or deletions of population and housing items.
- New population or housing subjects.
- Geographic detail needed by subject matter
- Geographic areas and products.
- Data products and formats.
- User guides and other material.
- User services.
- Publicity and community relations.

THE CENSUS BUREAU ALSO NEEDS TO KNOW:

- What 1980 data products did you find most useful?
- What were your problems in using the information from the 1980 Census?
- What new or unusual applications were tried?

THERE IS NO CHARGE TO ATTEND THE MEETING

GENERAL AGENDA WEDNESDAY, SEPTEMBER 18

8:30 a.m. Registration
9:00 a.m. Welcome and Introductions
  Population Items and Issues
  Public comments
  Housing Items and Issues
  Public comments
  Data Products and Services Issues
  Public comments
12:00 noon Lunch
1:30 p.m. Data Products and Services Issues, continued
  Geographic Issues
  Public comments
  1990 Census Outreach
  General Discussion

4:30 p.m. Adjourn

REGISTRATION

Please register in advance. Contact the Bureau of Business Research, 200 CBA, University of Nebraska-Lincoln, Lincoln, Nebraska 68588-0406, 402/472-2334. Space is limited, so please register early.

BUSINESS IN NEBRASKA
PREPARED BY BUREAU OF BUSINESS RESEARCH
Member Association for University Business & Economic Research

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Vol. 41 No. 492 September 1985

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BUSINESS IN NEBRASKA

October 1985
Vol. 41, No. 493

Prepared by the Bureau of Business Research, 200 College of Business Administration, University of Nebraska, Lincoln, NE 68588-0406, 402/472-2334

AN AGRICULTURAL ALTERNATIVE?

FRUIT AND VEGETABLE PRODUCTION IN NEBRASKA

Falling grain prices. Sluggish cattle markets. Depressed land values. These and other factors plaguing Nebraska farmers in the past years are widespread and far reaching. Foreclosure actions and government policy changes have precipitated a crisis in the Nebraska agriculture community. Economists, politicians, academicians, and others propose a variety of cures for the malaise of Nebraska farmers and ranchers. These proposals run the gamut from a government bailout to increased diversification of the state's industries. This edition of *Business in Nebraska* details one suggested solution for the state's ag woes: an increased role in the state economy of fruit and vegetable production.

Factors necessary to strengthen the Nebraska food industry are identified. The article also examines trends that will affect state producers and processors in the next five years. Ways in which different segments of the food industry can strengthen Nebraska's position in the global marketplace are presented.

The move toward diversity in the state ag sector is a laudable one; relying solely on traditional crop and livestock production in the 1980s may place farmers and ranchers in a perpetual boom and bust syndrome. But the transition to new crops will not be without problems. New crops call for new technology, new production methods, new marketing strategies, and new processing procedures. The coming years pose a test of the ability of growers in Nebraska to expand and diversify to the fruit and vegetable field.

FRUIT PRODUCTION

Historically fruit has played a large role in the state food industry picture. In the mid to late 1800s, fruit of many varieties flowered throughout the state--apples, peaches, pears, apricots, strawberries, blackberries, cherries, grapes, and plums were among the state's bounty. According to the annals of the State Horticultural Society, fruit trees planted between 1854 and 1882 topped the 12 million mark. Nebraska and other midwestern states were the staple source of the nation's apples, with annual state harvests ranging from 200,000 to 300,000 bushels.

High corn prices, severe freezing weather, an increase in mechanized agriculture and the resulting ease in growing row crops contributed to the demise of the fruit industry in Nebraska. California growers now provide a large share of crops previously produced in the state. Fruit growing in Nebraska is too limited to warrant any mention in U.S.D.A. fruit production statistics. Fruit growers, while scattered throughout the state, are concentrated in the eastern third of Nebraska. Production is limited primarily to apples, cherries, strawberries, and raspberries.

A new breed of fruit farmer is emerging in the state, however. Pick-your-own strawberry and apple farms are sprouting in the eastern counties in the state. There has been also a slight resurgence of commercial orchards. Fruit acreage has doubled since 1979, according to the University of Nebraska-Lincoln Horticulture Department, to levels currently over 500 acres. Fruit producers have branched into related subsidiaries; in one instance, jams and jellies are manufactured from native fruits.

The regrowth in the Nebraska fruit industry is not a panacea for current farm ills. Most fruit requires labor intensive, skilled production. Apple trees, for example, need expert pruning and six or seven years to bear mature fruit. Experts caution that harvesting and marketing of fruits differ greatly from those of corn; mature fruit worth $200 a ton may be worth $20 a ton one day later. Even the relatively simple pick-your-own operations can be troubled by customers who eat the fruit they are supposed to harvest, damage to plants from improper picking, and lack of sales in unseasonably hot or cold weather.

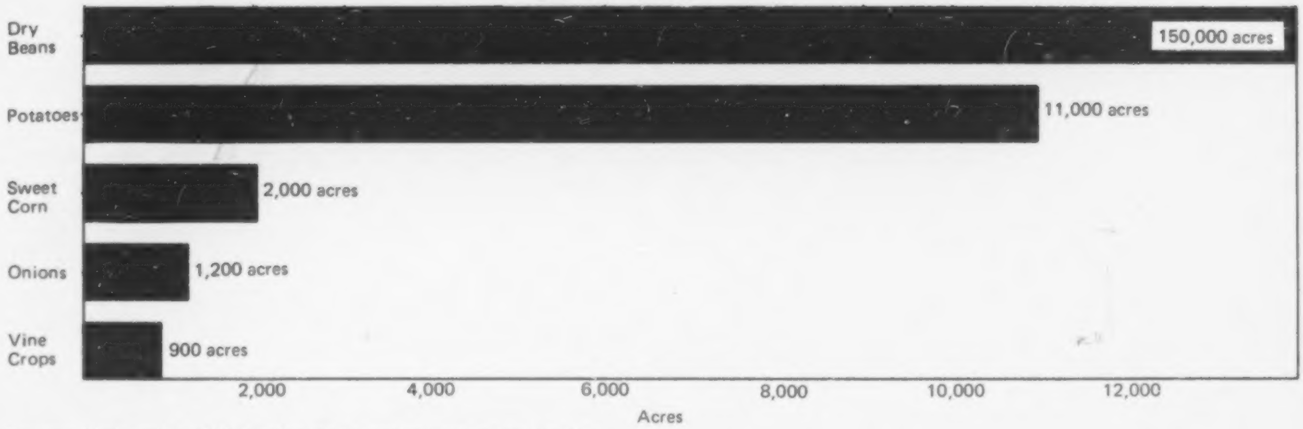
VEGETABLE PRODUCTION

Despite the state's abundant water, sandy soil, and suitable climate for vegetable production, over 96 percent of the vegetables that Nebraskans consume is imported from sites as distant as California and Guatemala. Lured by the possibilities of $5,000 per acre profits, local farmers are expanding from traditional vegetable crops such as dry edible beans, potatoes, and watermelons to so-called specialty crops such as onions, carrots, cabbage, lettuce, broccoli, and cucumbers.

Vegetable growing demands the same labor intensive production as fruit growing. Seedbed preparation, cultivation work, irrigation scheduling, and harvesting and marketing timing require a radical departure from grain farming methods. Alternative crops may necessitate new technology. For example, broccoli transplanted from greenhouses thrives much more than broccoli planted directly in the field, according to University of Nebraska Panhandle Research and Extension Center officials. Vegetable

(continued on page 2)

Figure 1
Vegetable Production in Nebraska
Acres Planted in 1984



Source: University of Nebraska Cooperative Extension Service

(continued from page 1)

production may also be hampered by the lack of federal price supports and acreage controls that the government accords more traditional crops.

Developing a market for alternative crops may be the greatest challenge to Nebraska farmers. Some producers find it best to start small, selling through roadside stands or through direct sales to local grocers. The profits of such small operations are limited; size is a prerequisite for large profits. Nebraska farmers face stiff competition, however. California, Texas, and Florida, who garner a majority of the fruit and vegetable market, provide stiff resistance to the inroads of small growers. Only growers with top quality products at competitive prices can thrive. Producers must form coalitions and learn every facet of the field. Panhandle growers, for example, have formed a vegetable growers cooperative to streamline individual marketing efforts.

It is imperative that growers target a market accurately. Inaccuracy can lead to the equally perilous pitfalls of the spoilage of overabundance or the inability to meet contracted amount specifications. Some growers have improved their marketing through processing. Stromsburg, Nebraska area developers, for instance, have purchased planting, harvesting, sorting, and packing equipment in conjunction with a local onion grower. The onion operation could be further improved, growers and businessmen feel, with the addition of dicing and freezing equipment. Panhandle vegetable growers have established a processing operation, where produce is individually quick frozen. Storage and processing facilities have been constructed also in the Grand Island and Wahoo areas. Volume sales (and greater profits) are available only if growers can provide a constant, year round supply. Producers, therefore, must expand their operations to include long term storage of food goods.

The history of vegetable production in the state is a long one. In the 1960s, food manufacturers experimented with suppliers in the Kearney area. Farmers' enthusiasm for vegetables dampened when many first time growers failed to profit. Ag observers blame most problems of the 1960s growers on overproduction and limited markets. To avoid the disappointments of that era, growers must stress marketing and processing.

Food finishers are moving further from the initial processing. In California, for example, growers own an estimated 90 percent of all processing equipment. This trend necessitates increased capital investment from growers in conjunction with community support and government grants. Swelling merchandising requirements face producers--food finishers demand high quality, competitive prices, and increased processing.

Growers are further distanced from food finishers by food brokers. Food brokers function as order takers. They are the key market individuals who match producers and finishers. To attract and satisfy the needs of brokers, growers must adapt a three pronged merchandising strategy; they must provide fresh fruits and vegetables, they must process to meet market demands, and they must use storage facilities to meet demand over a longer time period.

Vegetable farming, with its glittering profit opportunities, is also prone to nightmarish headaches. Although the field has profit potential, vegetable and fruit growing also is vulnerable to weather and financing problems that face grain farmers as well. Much research and individual initiative are required for a profitable vegetable growing operation.

NEBRASKA FOOD PROCESSING CENTER

Contrary to conventional wisdom, Nebraska climate and conditions are well suited to fruit and vegetable growing. To be financially successful, however, fruit and vegetable operations need to evolve processing and marketing strategies. Early attempts at vegetable production ended often in disaster; in one instance, an onion grower was forced to discard two-thirds of his onion harvest due to a lack of a market. Other small businesses in the Nebraska food industry encountered similar problems. The Nebraska Food Processing Center at the University of Nebraska Institute of Agriculture and Natural Resources was created to subvert the obstacles confronting each individual producer and to match the needs of producers and processors.

The Nebraska Food Processing Center coordinates processing of crops and livestock into foods and food ingredients through

(continued on page 3)

(continued from page 2)

commodity development. Horticulturists connected with the Center recommended a certain breed of onion with production grade qualities of onions imported to the state from Texas and California to Nebraska growers. This strain of onion is suitable for use as onion rings. Other varieties were selected for Panhandle growers that are tailored for use in Campbell Food's frozen LeMenu dinners, which are manufactured in Omaha.

The Food Processing Center makes process research and development and systems evaluation affordable for the small scale food processor. The Center has discovered new and more efficient uses for Nebraska produce; conversion of cheese whey to protein products and uses for waste water from cooked cereal are under investigation.

Through a unique product referral system, the Center links the state's 400 food processors, 350 food brokers and distributors, and the numerous ranks of agriculture grain, vegetable, and fruit producers. Center staffers feel that if the export of commodities from the state can be stemmed, growth will be generated for the Nebraska economy. A goal of the group is to eliminate intermediaries between producers and processors; in one case, the Center was able to connect a Nebraska cheese producer who had been exporting cheese to Wisconsin to a local pizza manufacturer who had been importing cheese from Wisconsin. Through efforts of the Center, similar situations have been eliminated in the fruit and vegetable areas.

Packaging, promotion of national and international markets, personnel development and information dissemination are provided by the Center. The Center is a nonprofit consortium of specialists at the Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, and the Nebraska Department of Economic Development. Clients range from small family farms to food industry giants.

One of the most important factors in profitable fruit and vegetable production, the Center feels, is the ability of growers to work cooperatively. With the exception of potato growers (with the french fry and potato chip industries), fruit and vegetable producers have sold traditionally fresh produce in direct markets. Center marketing specialists urge growers to band together and to develop long term storage units to facilitate year round delivery in quantity.

For more information, write the Food Processing Center, University of Nebraska-Lincoln, 134 Filley Hall, Lincoln, Nebraska, 68583-0919, telephone 402/472-2819.

NEBRASKA FOOD INDUSTRY ASSOCIATION

The Nebraska Food Industry Association, a group comprising producers, retailers, brokers, processors, packagers, consultants, and financial advisors, was formed to improve communication within the industry and to develop and promote Nebraska food products in the national and international market. The Association plans to develop a common state food logo to strengthen Nebraska food goods identification.

The organization feels that the industry needs to implement an improved food transportation and distribution network. Individual firms can benefit, they believe, from more shared transportation and a better understanding of freight rate structures.

Changing consumer eating patterns pose a challenge to the Nebraska food industry. The industry needs to respond to consumer demands for ethnic foods, more poultry, better quality, higher nutritional value, and more convenience foods. Production techniques, management strategies, and alternative crop production must be flexible to enhance growth of state food producers and processors.

Federal and state mandates and controls also concern the group. Export barriers limit Nebraska food producers' opportunities, while food imports encroach on domestic markets of state

(continued on page 6)

Recommendations

Reprinted from An Analysis of the Potential for Establishment of a Vegetable Canning Industry in Nebraska
October, 1963, University of Nebraska College of Agriculture and Home Economics

1. Expanded efforts must be directed toward determining the long run commercial yield of vegetables in Nebraska. Unless commercial yields above minimum competitive levels are attainable, farmers in Nebraska will continue to produce established crops rather than vegetables.

2. The production of canning crops under contract would be a new experience for most Nebraska crop producers. Potential grower acceptance of such contracts with various arrangements should be explored in order to find which alternatives appear best suited to conditions and grower psychology in Nebraska.

3. After studies have shown which vegetables could effectively compete with established Nebraska crops and could be marketed at price and quality levels in competition with other canning areas, then detailed costs should be computed for model plants designed to process these vegetables.

4. The potential for pay-out of model plants should be explored on the basis of projected market conditions. Such conditions would include trends in canning as a form of processing, shifts in geographic areas devoted to production and processing of vegetables, and shifts in population and transportation costs.

5. The strength of the fruit and vegetable industry in some areas of the country is based apparently on the availability of alternative marketing outlets. Investigations should be made concerning the potential for other types of vegetable processing in Nebraska, including conventional freezing, freeze-drying, and dehydrofreezing.

Review and Outlook

The Nebraska economy performed an about face during June 1985. Output for the nonagriculture sector declined 1.6 percent on a month-to-month basis as measured by the Bureau of Business Research's physical volume index. In comparison, nonagriculture output increased 1.3 percent during May 1985.

Statistics required to calculate monthly changes in economic activity for the agriculture sector remain unavailable. The index of agriculture prices received by Nebraska farmers, however, declined 1.3 percent in June 1985 and has fallen almost 12 percent since June 1984. The declining index of farm prices received is clearly indicative of low commodity prices that add to the woes of a struggling Nebraska farm economy.

All sectors of the state economy contributed to the drop in nonagriculture activity during June. Respective monthly declines in the physical volume index for construction and government were 8.6 percent and 4.5 percent. (Construction activity increased 9.7 percent in May.) Lesser declines in June 1985 output were recorded for the distributive sector (0.7 percent) and the manufacturing component (0.4 percent).

Compared to the sales level of June 1984, total dollar volume retail sales declined 6.4 percent during June 1985. When adjusted for price changes, total sales decreased 8.3 percent. An examination of the components of total sales indicates that motor vehicle sales dropped a sizable 17.3 percent on a dollar volume basis

(continued on page 5)

Notes for Tables 1 and 2: (1) The "distributive" indicator represents a composite of wholesale and retail trade; transportation, communication and utilities; finance, insurance, and real estate; and selected services. (2) The "physical volume" indicator and its components represent the dollar volume indicator and its components adjusted for price changes using appropriate price indexes—see Table 5, page 5.

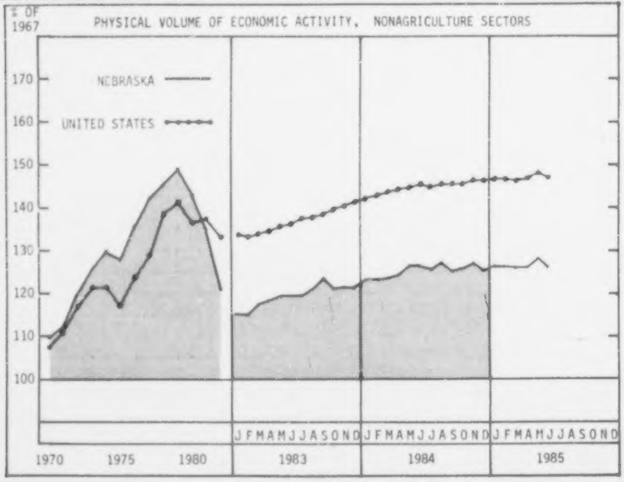
ECONOMIC INDICATORS. NEBRASKA AND UNITED STATES

1. CHANGE FROM PREVIOUS YEAR

June 1985	Current Month as Percent of Same Month Previous Year		1985 to date as percent of 1984 to date	
Indicator	Nebraska	U.S.	Nebraska	U.S.
Dollar Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	103.7	105.0	105.4	105.9
Construction	92.7	108.7	95.3	107.6
Manufacturing	98.5	98.7	101.8	101.2
Distributive	104.7	106.7	105.5	107.3
Government	111.0	106.8	114.0	106.8
Physical Volume	NA	NA	NA	NA
Agricultural	NA	NA	NA	NA
Nonagricultural	100.1	101.5	101.9	102.5
Construction	89.6	105.1	92.0	103.8
Manufacturing	99.0	98.2	101.9	100.7
Distributive	101.0	102.8	101.7	103.5
Government	101.7	101.3	104.9	101.5

2. CHANGE FROM 1967

Indicator	Percent of 1967 Average	
	Nebraska	U.S.
Dollar Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	377.5	449.1
Construction	293.9	456.4
Manufacturing	377.2	321.9
Distributive	384.3	517.7
Government	400.8	456.3
Physical Volume	NA	NA
Agricultural	NA	NA
Nonagricultural	126.2	147.4
Construction	82.3	127.9
Manufacturing	152.2	125.8
Distributive	119.2	160.6
Government	144.5	150.2



3. NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

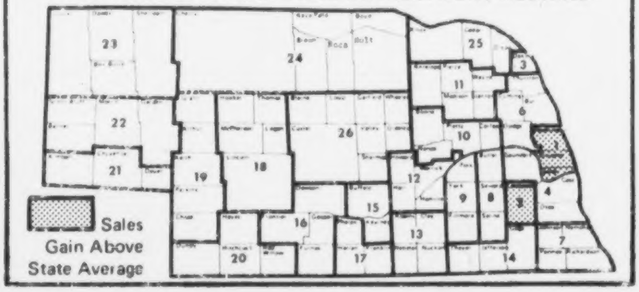
Region Number[1] and City	City Sales[2]	Sales in Region[2]	
	June 1985 as percent of June 1984	June 1985 as percent of June 1984	1985 to date as percent of 1984 to date
The State	95.3	93.6	100.3
1 Omaha	101.8	96.9	106.2
Bellevue	104.1		
Blair	103.3		
2 Lincoln	99.2	99.6	104.2
3 So. Sioux City	95.3	92.9	100.1
4 Nebraska City	94.4	92.1	94.2
6 Fremont	103.2	95.3	95.7
West Point	101.8		
7 Falls City	90.8	88.8	94.2
8 Seward	90.0	92.7	90.6
9 York	97.4	93.9	93.7
10 Columbus	92.7	87.6	92.4
11 Norfolk	95.8	89.2	95.7
Wayne	70.1		
12 Grand Island	91.8	89.8	96.4
13 Hastings	90.2	87.4	93.8
14 Beatrice	94.8	90.3	92.9
Fairbury	94.0		
15 Kearney	90.6	87.4	93.2
16 Lexington	98.8	89.4	91.8
17 Holdrege	82.2	84.4	89.6
18 North Platte	93.0	93.6	93.1
19 Ogallala	90.4	94.2	90.7
20 McCook	94.2	93.3	94.4
21 Sidney	108.2	96.4	99.4
Kimball	82.5		
22 Scottsbluff/Gering	95.5	93.1	97.7
23 Alliance	95.4	94.5	97.9
Chadron	95.3		
24 O'Neill	85.8	87.6	92.7
25 Hartington	85.8	84.5	91.3
26 Broken Bow	88.1	85.2	91.9

[1] See region map below.

[2] Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.

Compiled from data provided by Nebraska Department of Revenue.

1985 TO DATE AS PERCENT OF 1984 TO DATE IN NEBRASKA'S PLANNING AND DEVELOPMENT REGIONS



(continued from page 4)

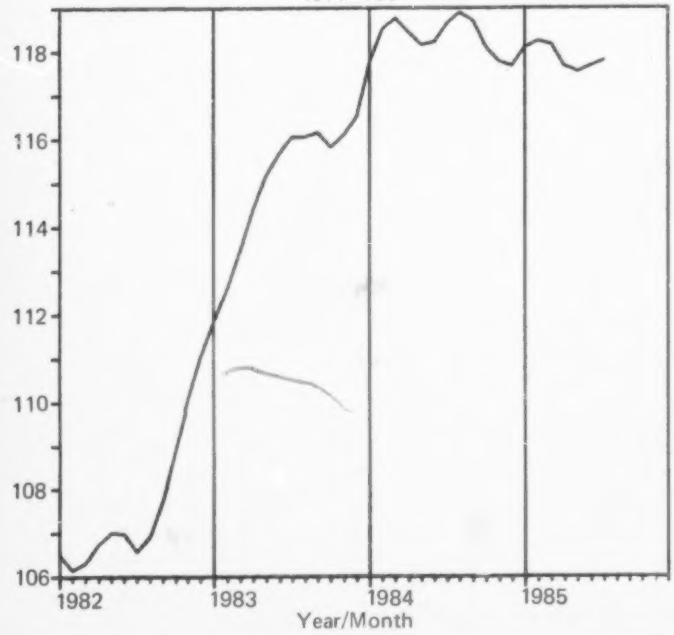
(18.4 percent price adjusted); dollar volume nonvehicle sales fell 4.7 percent (6.8 percent price adjusted).

The Bureau's city business index shows that only five of the twenty-six cities listed recorded positive changes in business activity during June 1985 as compared to June of the previous year. Building activity has vaulted Chadron to the top of the list again (+17.3 percent), followed by gains in Blair, Sidney, Fremont, and Fairbury. Although above the state change in business activity (-3.5 percent), both Lincoln and Omaha now register on the negative side of the business index scale.

The Nebraska composite index of leading economic indicators increased slightly during June and July 1985, as illustrated by the graph below. A seasonally adjusted decline in initial claims for unemployment insurance and gains (also seasonally adjusted) in construction contracts and average weekly earnings in manufacturing were primarily responsible for the growth in the composite indicator. Two consecutive increases do not clearly indicate in which direction the economy is moving. If the leading index posts a rise in August, however, improvement in the state economy could lie ahead.

CHARLES L. BARE

Nebraska Composite Index of Leading Economic Indicators
1977=100



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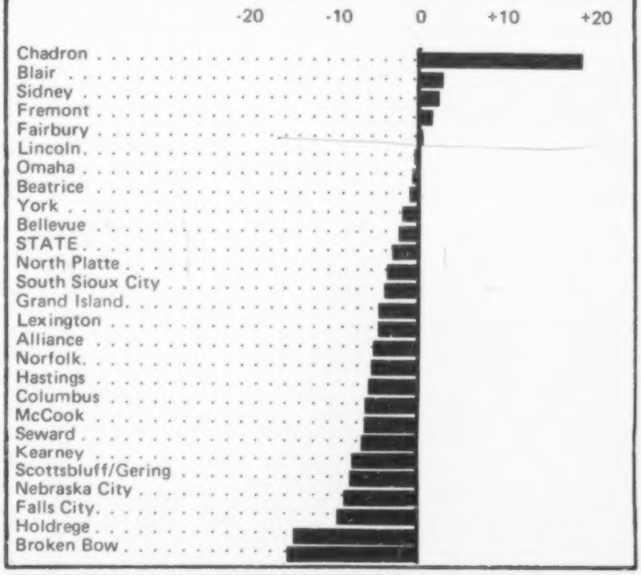
Agricultural Prices			
United States	230.0	88.5	91.1
Nebraska	222.0	88.1	91.2

*Using arithmetic average of monthly indexes.
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics; Agricultural Prices: U.S. Department of Agriculture.

CITY BUSINESS INDEX
Percent Change June 1984 to June 1985



4. June 1985 CITY BUSINESS INDICATORS

The State and Its Trading Centers	Percent of Same Month a Year Ago		
	Employment[1]	Building Activity[2]	Power Consumption[3]
The State	99.5	95.0	96.8
Alliance	98.1	77.9	89.9
Beatrice	99.0	180.1	100.1
Bellevue	99.6	58.3	113.7
Blair	99.7	151.8	94.1*
Broken Bow	99.8	17.2	110.2
Chadron	100.8	6,239.3	89.9*
Columbus	95.6	109.1	97.8
Fairbury	99.1	241.9	95.6
Falls City	100.1	42.4	88.6
Fremont	100.3	117.6	96.2*
Grand Island	99.3	107.5	94.5
Hastings	99.8	94.7	127.2
Holdrege	100.3	31.2	94.3
Kearney	99.8	69.1	95.7
Lexington	97.6	66.5	83.3
Lincoln	100.8	120.4	100.2
McCook	99.2	67.9	91.9
Nebraska City	99.2	41.5	93.6
Norfolk	99.1	67.6	83.4
North Platte	99.6	106.5	92.9
Omaha	99.7	93.6	97.3
Scottsbluff/Gering	99.9	43.5	134.2
Seward	99.5	92.7	99.9
Sidney	98.6	101.0	103.8
So. Sioux City	98.8	91.2	100.6
York	98.9	115.7	100.7

[1] As a proxy for city employment, total employment for the county in which a city is located is used.

[2] Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.

[3] Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.

Source: Compilation by Bureau of Business Research from reports of private and public agencies.

(continued from page 3)

products. Initiative 300, which restricts ownership of agricultural land in Nebraska, and taxation are further impediments to the state food industry. A stable long term federal ag policy and uniform enforcement of regulation and deregulation are necessary for the economic well being of the industry, according to many of its members.

High interest rates and financing problems plague many processors and producers. Some feel that traditional financing does not provide a broad enough base for current and future industry needs. New sources of capital (such as venture capital firms or pools, equity capital from local investors currently renting money to coastal markets, and more creative and flexible terms for plant expansion) are under exploration.

For further information about the Nebraska Food Industry Association, contact Cal Campbell, President, in care of International Spices, 322 South Main, Elkhorn, Nebraska 68022, 402/289-2019.

SUMMARY AND CONCLUSIONS

Inflated farmland values, overburdened agricultural finances, capital intensive monocultural farming and other factors have contributed to a crisis in Nebraska agriculture. Farmers in the state are searching for solutions to current ag problems.

Fruit and vegetable production may pose a profitable alternative to grain and livestock for some. There is a potential for profit in fruits and vegetables as supplementary cash crops. But labor intensive production methods are necessary for fruit and vegetable production. Fruits and vegetables may also require concentrated marketing efforts. The individual farmers can succeed only if he or she is willing to work closely with other growers and producers. Vegetables do not offer a get-rich-quick scheme for farmers. And alternative farming is not for everyone.

Members of the state food industry are collaborating to strengthen state food production and processing. Business, government, and agriculture are fighting to protect Nebraska markets from foreign competition, from restrictive legislation, and from high cost inefficiency in transportation, utilization of local suppliers, and other threats.

It is important to note that diversification of Nebraska agriculture into fruits and vegetables will not rescue farmers and ranchers from current financial difficulties. It is an alternative that may aid some, but in the long run it is doubtful if the state will switch its role from that of a major grain and livestock producer to that of a major fruit and vegetable producer. Nebraska's distance from population centers will restrict the development of fruits and vegetables as cash crops. Nevertheless, it is important to consider these alternatives for diversification, as they may help some farmers make the transition through this difficult period.

MARGO YOUNG

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